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textile bulletin

"The South . . . Its Industrial Growth and Expansion" is an interesting survey of this section's progress in textiles and other fields. It begins on Page 15.

ADVERTISERS INDEX—PAGE 39

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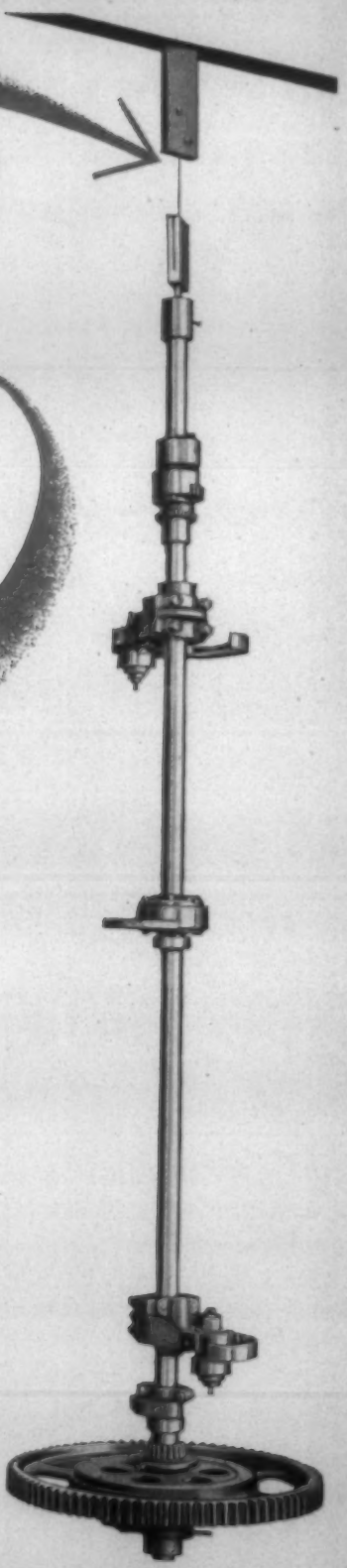
How C&K Engineers "TUNE" a Piano Wire



. . . to reveal the real rhythm of Loom-Shaft Operation

No useful tool is overlooked in C&K's ceaseless quest for loom improvements. Even a plain piano wire is employed as part of a precision set-up for measuring the "flywheel-effect" of rotating loom parts.

This wire, clamped rigidly overhead at one end, and to a bottom shaft at the other end (as shown), twists as the shaft is rotated a certain number of degrees in one direction by the application of a measured force. When released, the period of oscillation of the shaft is timed as it turns slowly, first in one direction, then in the other. From all these measurements, the "flywheel-effect" of the rotating mass is determined.

These findings are studied carefully for possible ways to engineer better load-carrying characteristics into loom motors (and loom motors are like no other motors, you know). And these findings are also studied for ways to enable the loom, as a whole, to better absorb the kinetic energy of rotating parts when the loom is stopped suddenly. This particular study is aimed toward two end-results: Increasing the continuity of loom-operation, and decreasing cost of maintenance. And many such studies are in progress constantly at C&K . . . each one working slowly and surely toward higher weave-room efficiency for *you*.

Crompton & Knowles Loom Works

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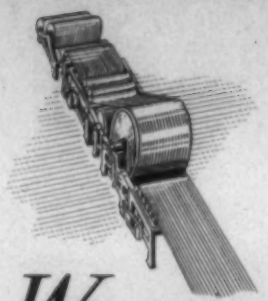
PHILADELPHIA, PA. • CHARLOTTE, N. C. • ALLENTOWN, PA.

between Today's War Weapons . . . and their New Uses in Tomorrow's Looms



Weavers of Spain...

● The Moors brought with them to Spain the spinning and weaving methods they had learned from the Egyptians. Centuries before the Egyptians practiced the starching of their warp yarns, with a paste made from grain, for greater strength and weavability.

Today—Staley Starches are under rigid scientific control, to meet all requirements of weavability, from the buying of the native corn to the finished product. This scientific control guarantees uniform quality and performance from each and every shipment. This control permits your sizing formulas to remain constant. Staley's complete line of thick and thin boiling starches meets the most exacting requirements for every textile use. Staley's consistent, high-quality production—under complete laboratory control—has won enthusiastic approval of textile men everywhere. Use Staley Starches for year after year satisfaction.

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COTTON MILL MEN

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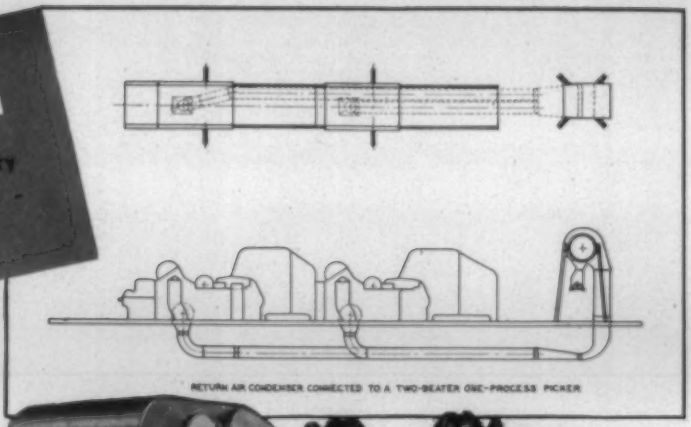
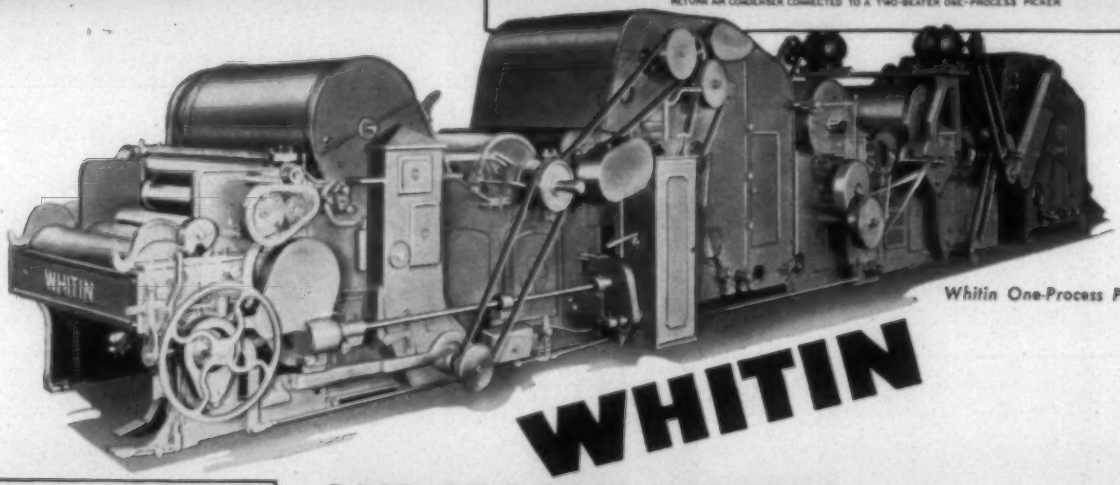


RETURN AIR CONDENSER CONNECTED TO A TWO-BEATER ONE-PROCESS PICKER



Whitin One-Process Picker.

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ONE PROCESS PICKERS
plus
RETURN AIR CONDENSERS

In the highly competitive days ahead *quantity* production alone will not be sufficient. It is of the utmost importance that your Picker Room production be of the highest possible *quality* to insure trouble free operation in subsequent processes.

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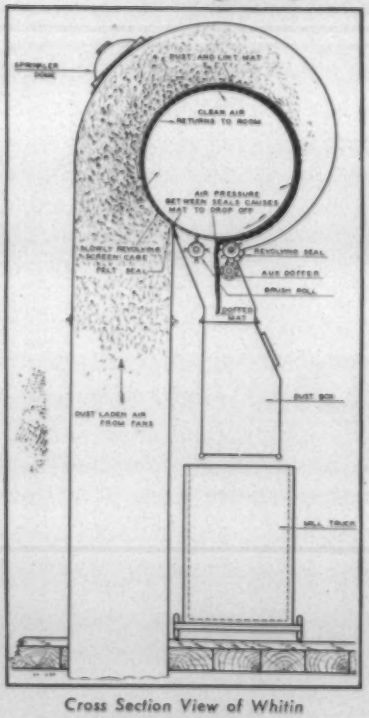
(2) Gentle but positive action on the fibers.
(3) Evenness of lap produced.
(4) Economical operation with high production.
(5) Rugged yet precise mechanical construction.

An ideal accessory for your Picker Room, for use in conjunction with One Process Pickers, is the Whitin Return Air Condenser. These units are of definite help in controlling dust conditions, maintaining proper humidification, and reducing the fire hazard in the Picker Room.



Cross Section View of Whitin Return Air Condenser.

Whitin Return Air Condenser.

WHITIN MACHINE WORKS
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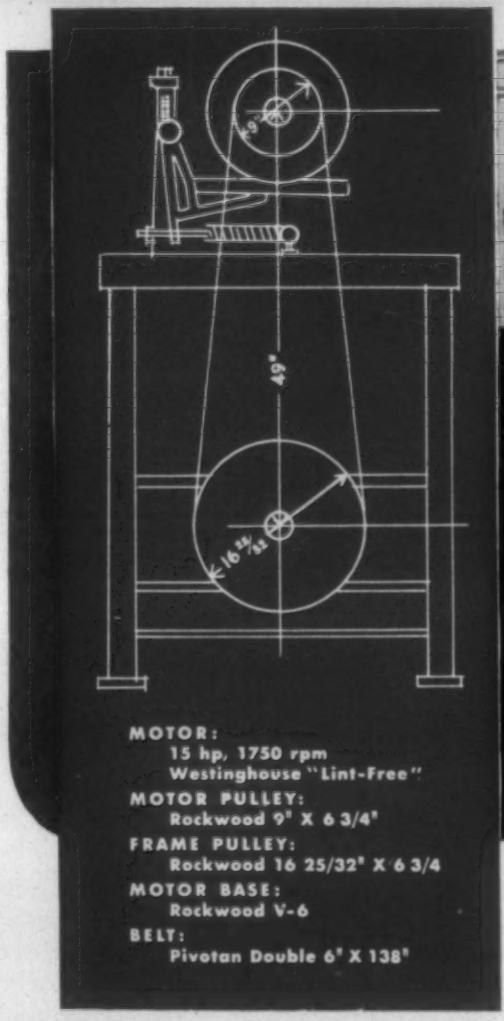
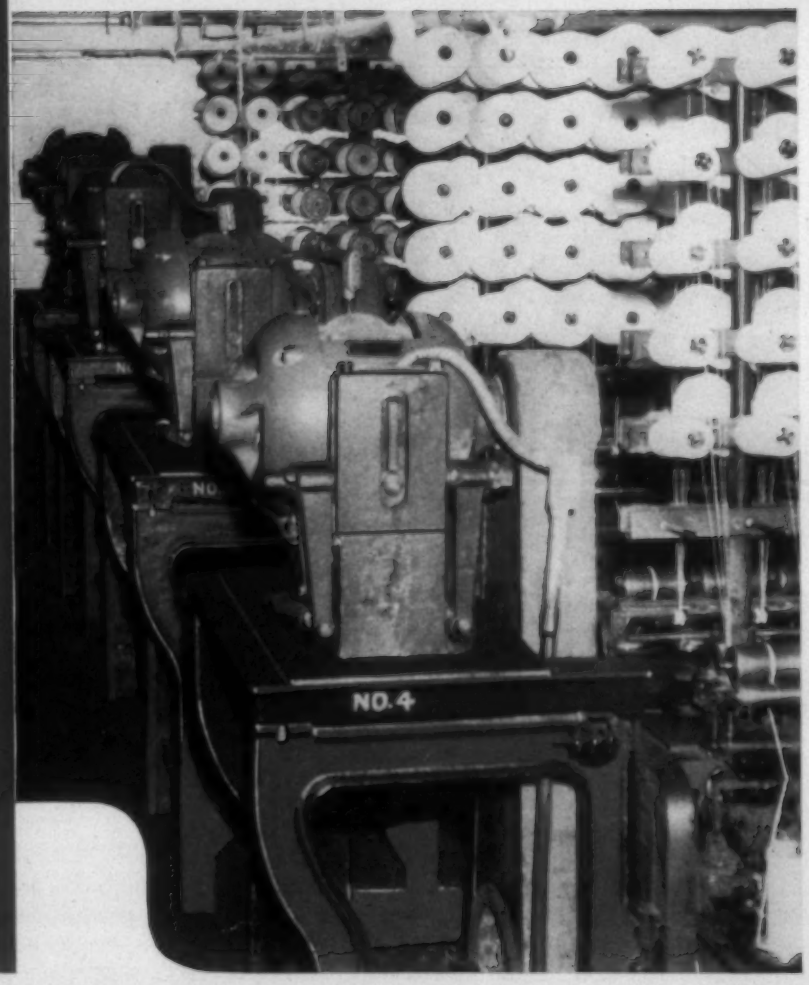
CHARLOTTE, N. C. **ATLANTA, GA.**

A *New Twist* IN TWISTER DRIVES



MOTOR:
15 hp, 1750 rpm
Westinghouse "Lint-Free"
MOTOR PULLEY:
Rockwood 9" X 6 3/4"
FRAME PULLEY:
Rockwood 16 25/32" X 6 3/4
MOTOR BASE:
Rockwood V-6
BELT:
Pivotan Double 6" X 138"



This winning combination, designed to provide the ultimate in efficiency, space-saving and ease of maintenance, will keep your twisters running at peak production, insuring lowered costs and increased profits.

Our engineers are eager to help solve *your* drive problems, too. Why not write us today, to send one of them for consultation?

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Manufacturers ATLANTA, GEORGIA *Distributors*

DYED ACETATE RAYON!

finished with

ARIPEL-FS

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Has Excellent Fastness to Atmospheric Gases

Yes, acetate rayon dyed fabrics treated with double-action ARIPEL-FS are remarkably resistant to the fading action af atmospheric gases as proven by the "Gas Chamber" test.

ARIPEL-FS is also an effective softener and therefore works two ways in a one bath treatment —

- **Increases the gas-resistance of the color.**
- **Imparts a soft, smooth pleasing finish.**

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Manufacturers of Industrial Chemicals for over 40 Years

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A Grim Sentence

THE purpose of this article is to write one sentence. I have never seen this sentence in print nor have I ever heard it spoken. The man with the gun thinks about it a lot at first and then he tries to forget it but he never can. He never speaks the sentence but you can tell he is thinking about it because it is in his eyes.

Why hasn't the sentence been written before? Sometimes it is not good to put certain thoughts into print. The man with the gun knows about it but there is something final and cold about the printed word. Once you write it down there it is and you can't take it back and say no, it really isn't true. Some people think the American public can't take it or shouldn't be asked to take it. Some think it would damage the morale of the men with the guns.

The sentence is this: *"A rifleman or a platoon leader or a commander of an infantry company in combat with the enemy has no hope of coming through the war unscathed unless he is saved by the armistice both in Europe and in Asia."*

Now you see why it has never been written down. Before you condemn me for writing it listen to my reasons. It all has to do with winning the war and with winning the peace. We are all in the business of trying to do the first. Soon we will be in the business of trying to do the second. But before we can do the second we must do the first.

No person can know about the war from reading newspaper accounts —no matter how vivid, no matter how dramatic and no matter how many times the same things are said over and over again.

So I write this sentence. For here is something that is not alien to people anywhere. Everybody has thought a little about death and dying. It is not necessary to be a soldier to put yourself in the place of the people I am talking about. If you have red hair, just say to yourself: nobody with red hair will come through this war unscathed. That is absurd, you say. Well, it isn't if you apply it to riflemen. It is just so.

You will get a cold chill down your

spine. You will understand the terrible necessity for an all-out effort by everyone everywhere. You and the soldier will be closer than you have been.

That is why it is overbearingly urgent that if the war can be won in a single day we must make it so. The end of the war will not just happen no matter how hard we wish or stamp our feet or screw up our faces. That is why it is everybody's business and that is why everything which is not directly for the war effort is just so much wasted time—time that for the fighting men is precious beyond all else.

You see now why I write this sentence. You see now why I risk the anger of some for breaking the doughboys' unspoken pledge of silence and the fury of others for speaking a grim and ugly truth that no one wants to hear. You see now why you must go "all-out."—*Sgt. Robert Fleisher, Stars and Stripes.*

Equity in Social Relations

ONE of the very successful mill men of our acquaintance has most delightful relations with his customers and has never had any labor trouble. When we asked him for the secret of his success in those two fields, he merely laughed and pretended he had none.

When we pressed him, confident that he must have a definite policy, he confessed that when young he had been so greatly impressed by Ralph Waldo Emerson's essay on Compensation that he had memorized part of it. One paragraph served as his personnel and public relations policy:

"All infractions of love and equity in our social relations are speedily punished. They are punished by fear. Whilst I stand in simple relations to my fellow-man, I have no displeasure in meeting him. We meet as water meets water, or as two currents of air mix, with perfect diffusion and interpenetration of nature. But as soon as there is any departure from simplicity and attempt at halfness, or good for me that is not good for him, my neighbor feels the wrong; he shrinks from me as far as I have shrunk from him; his eyes no longer seek mine; there is war between us; there is hate in him and fear in me."

That paragraph ought to be printed in big type and placed above the desk of every executive.—*The Howard Way,* Howard Bros. Mfg. Co.

"Bureaucrats"

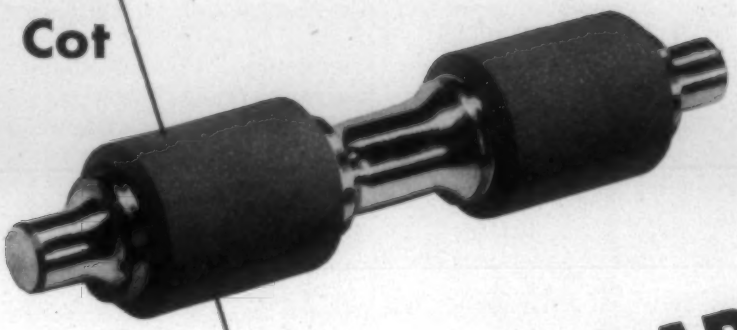
AFTER a comparatively short Washington assignment as a consultant to the textile section of WPB, the writer has returned to full-time Pepperell work. Here's one conviction that should be passed along—the men in the wartime agencies work very hard and their average day is long. They start about 8:30 in the morning and 6 to 7 in the evening is the usual stopping time.

Those men are sincere and earnest and always try to make the over-all decision which is best for our war effort. They can't always be right. No one could be. The complexities of our manufacturing and distributive system cause maladjustments to pop up in the most unexpected directions and then the job becomes one of affording the necessary relief. It must be admitted that the timing on this last point is sometimes too slow to be pleasing to industry. However, summed up, you should be proud of the character of the personnel who handle the Washington problems and pleased that with few exceptions they are forthright and serious in their approach.

The WPB group with which the writer had steady contact comprises smart men and their grasp of the overall problem was surprisingly complete. — *Donald B. Tansill,* vice-president, Pepperell Mfg. Co.

"We cannot have a society in which some work for wages and get them, while others do not work and still get them."—*President B. F. Fairless,* U. S. Steel, on guaranteed annual wage question.

This Improved Synthetic Cot



REDUCES TOP ROLL LAPPING

because it won't attract fibers . . . is non-sweating

ARMSTRONG'S new Accotex Cots offer you greater freedom from top roll lapping than any other synthetic cot. That's because Armstrong's Accotex Cots are made from a superior cork-and-synthetic-rubber composition. This material has absolutely no attraction for textile fibers. Moreover, it does not "sweat."

Besides reducing top roll lapping, Armstrong's Accotex Cots offer also the seven important advantages listed below. As a result, Accotex Cots are now serving more spindles than any other synthetic covering—helping hundreds of mills turn out more poundage and higher quality yarn.

Your Armstrong representative will be glad to help you prove the advantages of Accotex Cots by tests in your own mill. Ask him for samples, prices, and complete information. Or write direct to Armstrong Cork Co., Textile Products Department, 8206 Arch St., Lancaster, Pa.

OFFERS THESE *EXTRA* ADVANTAGES

1. **LONG SERVICE**—Accotex Cots are tough. And they can be rebuffed 3 or 4 times.

2. **GOOD DRAFTING** — Accotex Cots retain their excellent grip, because they resist slicking.

3. **REDUCED EYEBROWING** — The resistance to slicking minimizes eyebrowing.

4. **GOOD START-UP** — Accotex Cots are non-thermoplastic and resist flattening.

5. **SOLVENT RESISTANCE**—Accotex Cots are not affected by oil, water, dies, or textile solvents.

6. **SEAMLESS CONSTRUCTION** — Accotex Cots have no seams—can't break open in service.

7. **QUICK ASSEMBLY** — Accotex Cots are ready glued.

ARMSTRONG'S ACCOTEX COTS

CORK COTS • ACCOTEX APRONS

textile bulletin

Vol. 68 June 1, 1945 No. 7

The South...

ITS INDUSTRIAL GROWTH AND EXPANSION

By E. R. OLIVER, Vice-President, Southern Railway System

THOSE of us who call ourselves Southerners—and I assure you that I am one by birth and life-long interest, otherwise I would not dare to say what I am about to say today—are a queer lot in some respects. We are a proud people. We exalt virtue, honor and honesty. We have courage unlimited—and an unshakable faith in the right of the individual man to make his own way in life; to progress as an individual; and to profit from his enterprise. We work hard, and we play hard. We like a good fight—as long as it's a fair fight. We believe in, and try to live, the good life. Yet, with all these sterling qualities, we seem, as a group, to be afflicted with a confirmed pessimism; a martyr complex that colors much of what we do and say as individuals.

I say this, not captiously, but purely as a means of introducing what to me seems to be one of the paradoxes of the age. And my sole purpose in here discussing this paradox is to point out its utter absurdity; its dangers; its possible results in terms of your personal future and your business (whatever it may be) and mine. Contrast, if you please, these uncontrovertible facts:

Unmatched Progress

The South that we love so deeply has made greater industrial and agricultural progress in recent decades than has any other section of these United States, measured by any and every yardstick that can be applied. Yet today the most popular crusades in the South and the most widely quoted statements by Southerners in regard to the present and future economy of the South are those which are built on some alleged discrimination against our territory; on predictions of impending disaster; on continually "viewing with alarm" every possibility. In fact, it has come to be almost an accepted technique of those who wish commendation and applause in our sun-blessed South to mount the housetops and loudly echo the anguished cry of reconstruction days. This despite the fact that nothing could be more harmful to our common hopes for the future; nothing could be less substantial in truth; nothing could do more to insure the coming of the very calamities that are shouted loudest.

But let's take a quick peek into the economic history of the past 45 years. At the turn of the century this country was roughly divided into five great regions—the East, the Midwest, the South, the Cattle and Mining Country, and the Pacific Coast. Each had its customs. Each had its own characteristics. And each had its primary economic interests. Thus, if it had been possible to mount a modern movie camera far enough into the stratosphere above the source of the Mississippi River to sweep the entire nation with its all-seeing eye, here is approximately the "picture" that would have been recorded at that time. Directly beneath the camera would have stretched the vast mid-continent valley, spreading 2,000 miles from east to west, its agricultural central section checkered with tilled fields of varicolored hues. To the west, the film would have revealed the great grazing lands of the country, against a background of mountains honeycombed with mines. Beyond the mountains, hundreds of miles of semi-tropical valley to the south and vast timberlands to the northwest would have been recorded. Over the northeast section of the country, dense clouds of smoke pouring from the chimneys of thousands of industrial plants would have left their hazy imprint upon the "sands of time." And stretching far to the south would have been the states of the Southland, almost wholly agricultural, and almost wholly dependent on the industrial northeast for the manufactured products they required. That's the "picture" of the country as a whole—and of the Southland—in 1900.

Now, let's "see" the South as it is revealed in the years leading up to World War II—and as it is at the present. Incidentally, it is a very pleasing picture, by comparison. The South's bountiful supply of raw materials, its natural resources, its matchless climate, and its more than adequate supply of native-born intelligent labor were inducements too attractive to be ignored by an ever-expanding economy. These were the things that America's rapidly expanding industries needed. These were the things that Southern leadership promptly and courageously employed to write a glowing new chapter in the history of our beloved Southland.

Thus, it is not surprising to find that the mass exodus of the textile industry from New England to the South, which had begun even as our "picture" opened at the turn of the century, had reached a peak of 17,000,000 active spindles in the Southern states by the end of July, 1925. At the last count—July 31, 1944—there were 23,000,000 active spin-

dles in the South, a decrease of 40 per cent from the peak of 1925. Grounds for "viewing with alarm?" Yes—if you ignore the fact that each one of 1945's active spindles processed more than twice the quantity of cotton processed by the average 1925 spindle!

And to bring the picture closer home—at the present time nearly two-thirds of the cotton spinning mills in the country are located in North and South Carolina, and in Georgia and Alabama, and the Carolinas alone operate 48 per cent of all the cotton spindleage in this country! In 1939 the value of cotton goods manufactures in North Carolina was $324,000,000. This represents 23 per cent of the value of the total manufactures of the state. In fact, its value is exceeded only by that of your tobacco manufacture.

These gratifying and inspiring records are not merely the reflection of natural economic forces at work; they are the product of God-given advantages plus man-given leadership and direction; they are the hall-mark of Southern vision, courage, ingenuity, resourcefulness, ambition and drive. More gratifying still is the knowledge—nay the conviction—that the same inspired Southern leadership and talent that has brought about the relocation of the textile industry of the nation will inevitably bring about equally great industrial developments in many other fields of economic activity.

To me, even this small phase of our "picture" justifies my confessed optimism concerning the South's industrial growth and development. But let me emphasize the fact that the enormous expansion of the textile industry in the South is "only the beginning." Let's take another look: the expansion of the cotton textile industry in the South has been closely paralleled by the increase in tobacco manufacturing, an industry which is largely centered here in the land of its greatest raw material supply. In 1900 about 30 per cent of the nation's tobacco products came from Southern factories. Now at least 90 per cent of all tobacco manufacturing takes place in the Southern states.

Furniture manufacturing shows a definite move toward the South where producers can be close to our vast forests. Although the gain has not been as spectacular as that made by cotton textiles and tobacco products, it is an appreciable one. In 1900 the South made slightly less than 12 per cent of the nation's furniture; by 1939 it was making 25 per cent. The expansion of the pulp and paper industry in the South in the last two decades has been phenomenal. In 1939 the United States produced one-quarter of all the pulp and one-half of all the paper in the world. With an increase of 441 per cent in the production of wood pulp in the decade from 1930 to 1940, the South now produces over 40 per cent of the pulp and over 20 per cent of the paper for the nation. Within the space of a relatively few years, the industries making rayon and allied products have grown to enormous proportions. More than 57 per cent of this production is in the South. So it is with the burgeoning chemical industry; with plastics; iron and steel products, and a thousand and one other industries which have located in the South in comparatively recent years.

Natural Resources

But perhaps the most significant indication of the South's industrial growth in the past—and one of its most encouraging features for the years ahead—is the tremendous development of its natural resources. Installed horsepower for manufacturing purposes in the Southern states advanced 485 per cent between 1900 and 1939. The national gain was barely 400 per cent, while states outside the South can claim a gain of only 357 per cent. Paralleling the installed power increase for manufacturing has been a phenomenal growth of electrical output, now at an all-time high of more than 57 billion kilowatt hours annually. This is nearly three-and-one-half times the output of the entire nation in 1910.

From 1900 to 1943 there was a remarkable increase of mineral production in the Southern states. In 1900 the South's mineral output was valued at only $129,857,000—barely seven per cent of the nation's total. By 1943, the South's output had jumped to $2,936,168,000—more than 36 per cent of the nation's total. Petroleum, natural gas, coal, and sulphur play important parts in the industrial welfare of the South and the nation. Approximately 60 per cent of the nation's crude petroleum comes from Southern fields. Almost half of the bituminous coal is mined in Southern states. Nearly three-fourths of our natural gas comes from wells of the South. Bauxite, the source of our all-important aluminum, is found almost exclusively in the South. The production in other sections is minor by comparison. Much of this valuable ore is now processed in the South—and we have yet to touch the industrial possibilities of this light metal. The unlimited forest resources of the Southern states surpass those of any other section of the country, providing 33 varieties of woods for every conceivable industrial purpose. The comparatively new plastics industry, now centering largely in the South, will turn to the vast forest areas of the South for much of its raw materials.

Again it is our unlimited advantages plus our aggressive, capable Southern leadership that has brought these things to pass. And I ask, in all humility and sincerity: How can anyone, cognizant of these facts, view the future of our great section with other than the most inspiring optimism? We still have our resources, our raw materials, our climate, our labor—and our proven leadership—with which to enter the "brave new world" that is now in the making. How then can we welcome tomorrow with other than confidence and high hopes?

And so the "picture" unfolds. The industrial growth and expansion of the South — *(Continued on Page 48)*

LOOM LEATHER POINTERS No. 1
JACK STRAPS

The first in a series discussing the performance requirements of loom leathers:

REPEATED PULLING like this

calls for a JACK STRAP like this

The Problem: to pull down the harness one to two times each second, exerting effort against the resistance of the other harness which it has to *lift*.

Service Requirements: high tensile strength to withstand the repeated strain of being pulled each time the harness cam forces the treadle down . . . maximum resistance to flexing wear at the points where the strap passes through the stirrup and through the jack stick . . . high tear strength to avoid trouble at the buckle.

The Solution: Graton & Knight's "Hairitan" leather. This special "Hairitan" tannage develops tensile strength averaging over 6500 lbs. Each lot is tested on the Olsen Machine to make certain it has this desired tensile strength. It has extreme toughness coupled with flexibility. Fibre structure is tight and strong to resist tearing.

"Hairitan" is acknowledged the equal of any "European-type" hair-on leather.

All products in Graton & Knight's ORANGE LINE of "Hairitan" loom leathers — pickers, check straps and other straps — are identified by orange color on the flesh side. This signifies *one quality control from hide to loom* — by the world's largest manufacturer of industrial leathers. Write for catalog on Graton & Knight textile leathers. Graton & Knight, 328 Franklin Street, Worcester 4, Massachusetts.

GRATON AND KNIGHT

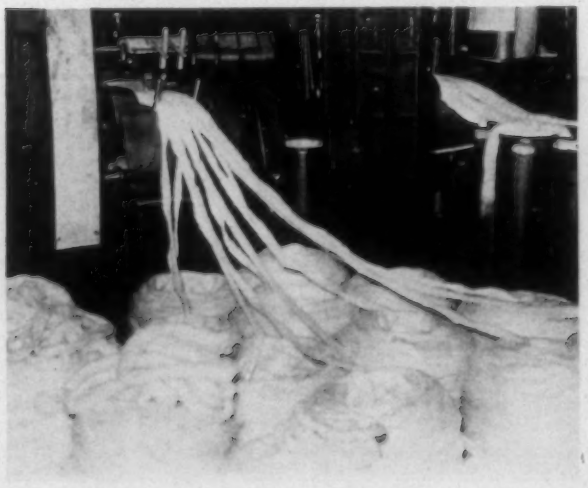
ORANGE LINE LOOM LEATHERS

A complete line manufactured under one control from green hide to loom. Supplied by the leading distributors in the textile industry. Look under "Graton & Knight" in "Belting" section of Classified Telephone Directory or THOMAS' REGISTER. See complete catalog in TEXTILE WORLD YEARBOOK.

MOHAIR HAS AN INTERESTING HISTORY

By IRVIN HICKMAN

MOHAIR is a precious fiber that has served mankind since Biblical days. The Angora goat has been properly termed the aristocrat of the goat family by virtue of his sustaining service to all those who saw fit to use him. The Bible records that God said to Moses, "Tell the people to bring an offering for the tent that shall house the Ark of the Covenant and the tables of stone, and this is the offering that Ye shall take; gold, silver, brass, blue and purple and goat's hair." And the records go on to say that more gifts were brought to build the tabernacle that was needed. This Biblical history further relates that Moses made 11 curtains of mohair to cover the tabernacle. The length of one curtain was 30 cubits and four cubits was the breadth, and the 11 curtains were of one size. And he coupled five curtains by themselves and six curtains by themselves and he made 50 taches of brass to couple the tent together, that it might be one house to shelter the ark, and over all Moses made a covering of ram skins dyed red.

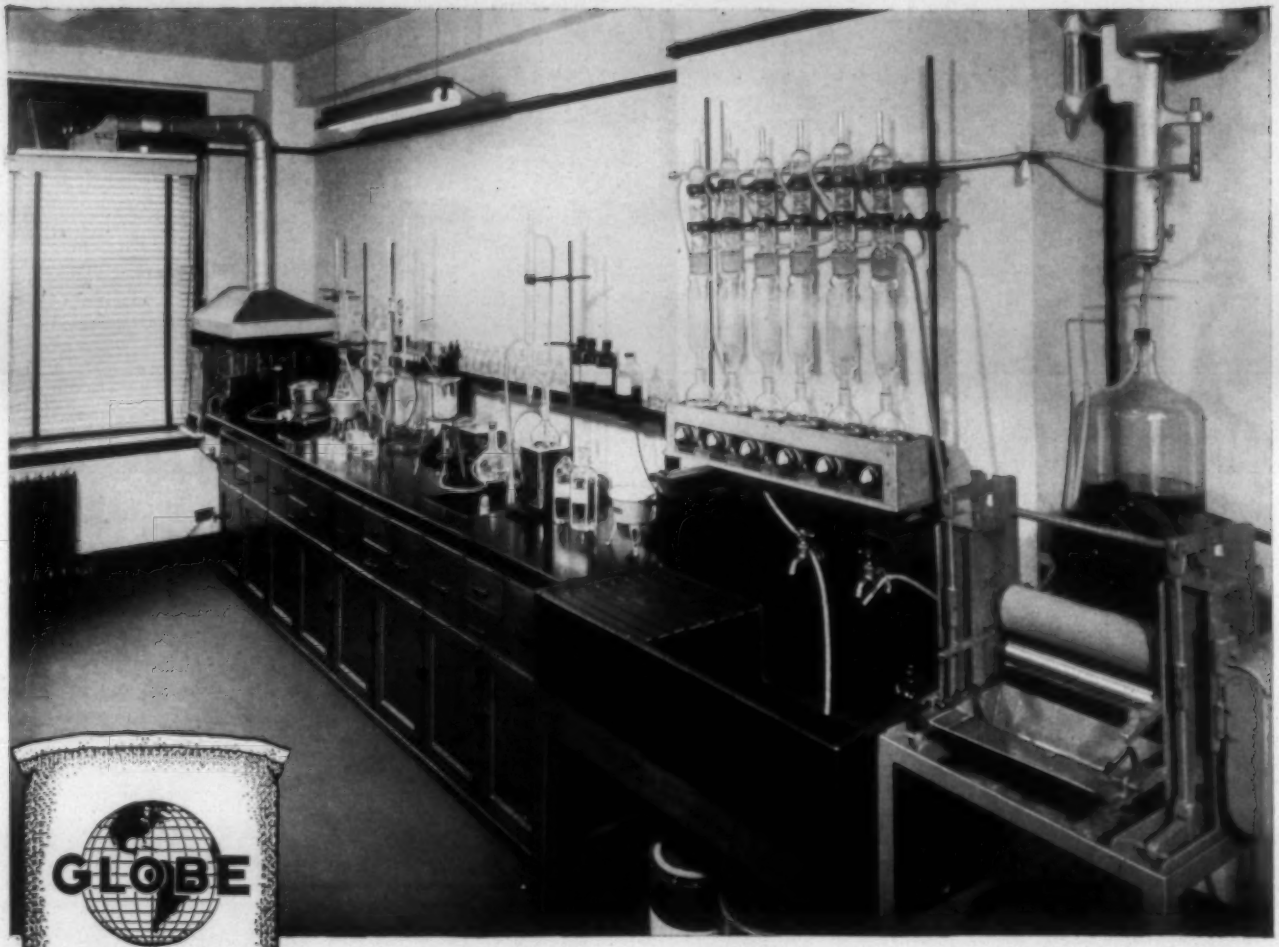


Above, veterans sort mohair into different grades and qualities. Below, doubling and drafting after carding prepares a uniform end of the correct weight for combing. At right, looms operated by trained weavers produce decorative fabrics of the most delicate coloring and texture.

The most beautiful of ancient rugs owe their luster and brilliance of color together with serviceability to the mohair fleece of the Angora goat. Turkey was the sole habitat of the Angoras for hundreds of years where it was a capital offense to take them out of the country. At the beginning of the 19th Century two goats were presented to the then American ambassador to that country by the Sultan of Turkey. Ninety per cent of our Angora goats are centralized in a 12-county Southwest Texas area of which the town of Rocksprings is the hub. These Angoras produce an average of 20,000,000 pounds of fleece annually worth approximately $10,000,000.

The mohair fiber comes in different grades of qualities, each of which has its own special uses and markets. Generally speaking, the principal grades are adult and kid hairs of varying degrees of fineness and strength. Mohair is used chiefly as a blending fiber with other fibers adding luster, strength, suppleness, softness and color beauty. The fiber has a rich satin luster. Kid mohair in addition possesses a softness akin to cashmere, vicuna, and the finer grades of camel hair.

Mohair is used for upholstery, rugs, carpets and other decorative household fabrics. Sixty per cent of the clip in normal times has been used in upholstery for the automobile industry. Each year during the past decade, mohair has found wider uses in apparel fabrics. The coarser adult hairs make the unusually warm, lustrous men's fleece overcoats,



Looking Ahead to Better Textiles

OUR experienced technicians, using the complete facilities of our textile laboratory, at Greenville, S. C., have successfully solved many problems in the use of starch. We cordially invite you to consult them if you have any starch problems. Their services are at your command.

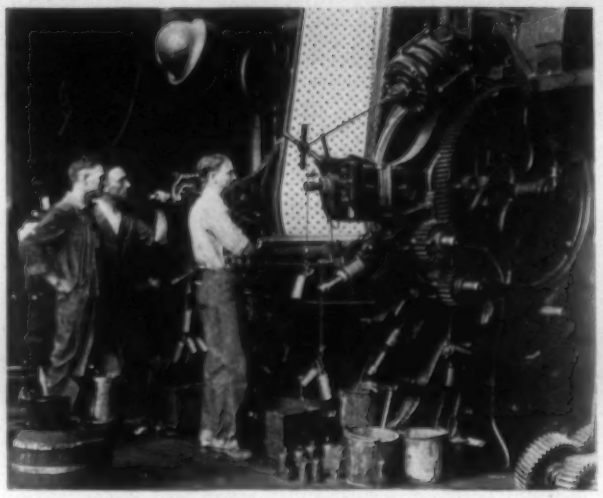
CORN PRODUCTS SALES COMPANY

Greenville, S. C. Greensboro, N. C. Spartanburg, S. C.
Birmingham, Ala. Atlanta, Ga.

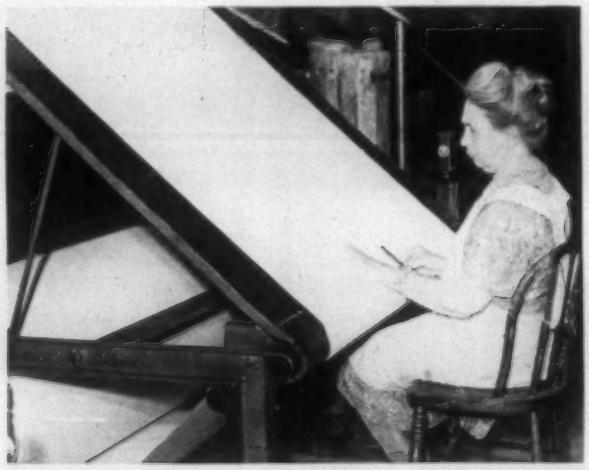
women's fleeces and pile coat linings. Kid mohair is used in combination with wool in fine satin finished worsted suitings and in sheer women's dress materials, weighing as little as five ounces to the yard or less than a pound to the ordinary dress. By the same token, this serviceable fiber is equally well used in tweeds, broadcloths and wool duvetyns. It is the universal blended fiber which improves the appearance, service qualities and the color values of any product in which it is used.

Contrary to the general practice with wool, mohair dealers card and comb the fiber into tops, and deliver it to the mills in the semi-processed state ready for blending with wool or other fibers. Only a few mills scour, card and comb the raw fiber. This is because it is necessary to isolate the mohair during processing, since its consistency is different from that of wool and the loose fibers during the carding, drawing and spinning would become mixed with the wool, changing the character of the eventual yarn.

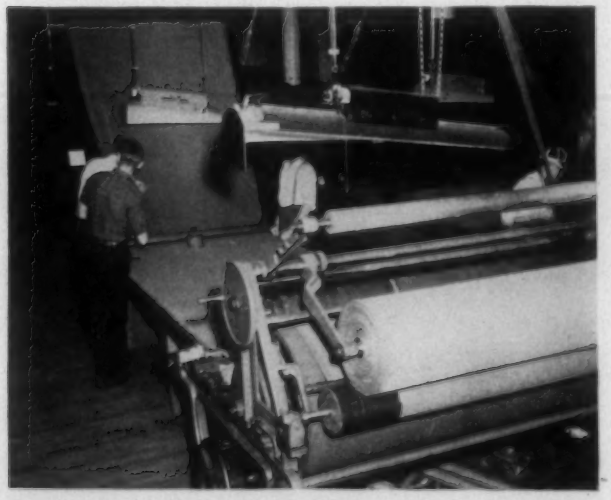
The first step in processing mohair is sorting it into different grades or qualities of pure adult and kid mohair. As in woolen manufacturing, mohair is scoured by putting the fibers through vats filled with a scouring liquid in which the animal burrs, dirt and other impurities are removed. In this process mohair loses around 40 per cent of its grease weight. From the scouring vats mohair is carried to the carding machines. When being carded the mohair is sometimes blended with other fibers such as wool, cotton or rayon before being spun into a composite yarn. In other instances the mohair yarn remains a separate entity and is woven in combination with wool, rayon and cotton yarns.



Mohair mills make use of both roller printing, above, and screen printing, below. Printing is done on fabrics which are either white or already dyed with a base color.



Above, during intermediate inspection prior to singeing, a careful check of the mohair fabric is made. Final inspection, below, is also very important to quality control.



From the loom the fabric goes through a series of finishing processes, the variety and extent of which are determined by the type of fabric to be produced. The first and most important is fulling, which consists of saturating the newly-woven cloth with warm water and soap and passing it between slowly revolving rollers under pressure in a wooden vat. This process causes the fiber to travel under heat and moisture pressure toward its root end. In this movement they entangle and interlock, giving the fabric strength and body. Flat, clear—*(Continued on Page 41)*

HOW CALGON WAS DEVELOPED—*And* THE MAN BEHIND IT

RALPH E. HALL

WHEN Thomas Graham of England isolated and identified the salts which bear his name, he did not realize that the chemical could have been of wide use in the textile industry of his time. When it finally was applied, it came not from Great Britain but from America—from the steel producing city of Pittsburgh, in fact. And chemists now call it vitreous sodium phosphate, or Calgon. The story of how this strange chemical, only a laboratory curiosity for a hundred years, found its way into textile processes in this country dates back to 1933. That was the year in which the first textile plant in New England introduced it into its dyeing and scouring processes.

The suggestion came originally from R. L. Williams of Boston, Calgon representative. He was allocating the material to commercial laundries, which were having trouble due to soap film which made the clothes gray and fouled up the washers. The chemical not only softened the water despite all the minerals on the clothes but locked up calcium and magnesium in soluble form, leaving no precipitate, and permitting the laundry manager to turn out whiter wash which appealed to customers. Williams wondered if the water processes in textile dyeing and scouring might not also benefit economically. No one at Pittsburgh knew with certainty; everybody there felt they would. It had been less than a year since the chemical in its present form had been made available to any field other than power plants. Pittsburgh suggested that Williams get a textile man on his staff and find out. E. B. Bell, a thoroughly-trained textile chemist and colorist, was induced to head up the new work. Today it is considered a necessity in most of the textile plants of New England and the South and is used in processing wool, cotton, silk, rayon and practically every other fabric.

Research Stemmed From Boiler Trouble

Meanwhile, through arrangements made with firms in Great Bitain a year or so after it was introduced here, the British textile industry has finally drawn upon the century-old research which Thomas Graham had conducted in his laboratory. If only Graham had dreamed of its possibilities! But he and a century of chemists after him were content to leave it on its shelf as a curiosity of the laboratory. If the original research which isolated the chemical was done in England more than a century ago, how did it come to be made available in the United States? That is a story in itself. It traces back to the early 1920's, right after World War I, when American industries generally—automobiles, food, power and other great plants—were calling for more and more steam power from their boilers. As pressures and temperatures rose, something chemically unforeseen happened inside the boilers. What it was, nobody then knew. But there arose a horde of compounders with elixirs of every description to offer. These boiler "medicine men" offered flaxseed meal, castor oil, potato peelings, wheat chaff and even stable manure as remedies. Few of them worked; generally they put the boilers in worse condition, shutting down large and small plants alike while the boilers were cleaned or the tubes re-turbined or replaced. The loss to industry ran into millions.

John M. Hopwood, president of a firm which was selling stokers and developing a system for combustion control, realized that water trouble was involved. He developed a deconcentrator to eliminate scale and corrosion, but even this did not seem to remedy conditions. At last he went to talk with A. C. Fieldner of the U. S. Bureau of Mines at Pittsburgh. Fieldner suggested he had a man named Ralph E. Hall who knew a lot about water and who might be induced to find out why boilers scaled up. Hall, however, was not too deeply interested; he had other chemical fish to fry. But Hopwood was a born salesman. Before much time had elapsed, Hall was embarked upon a co-operative investigation at the Bureau of Mines. It was to be only a short investigation, but actually it took four and one-half years. Then Hall began in 1924 to report to engineering and scientific societies that he had found how to prevent scaling and corrosion by holding the boiler waters in chemical equilibrium with respect to alkalinity and phosphate content. In 1926 Hopwood established Hall Laboratories, Inc., with Hall as its director.

Like a true chemist, Hall had tried many different chemicals—not only in the laboratory but in a boiler in the Mesta Machine Works. He tried soda ash there and elsewhere, but under the high pressures it broke down and became ineffective. He tried trisodium phosphate and the other usable orthophosphate, but still the alkalinities went up, with no way to control them. He knew by then that he had to find a way to rob calcium of its dangers without letting the alkalinity go any higher. By 1929 he had decided that the right chemical needed was the glassy sodium phosphate —Graham's salt. And so off the laboratory shelf came this century-old material, fooled—*(Continued on Page 44)*

Not WHEN . . .
. . . but HOW?

• Leather is no different from any other product for it will eventually wear out. HOW it wears out is one of its most valuable contributions towards maintaining the quality of the yarn. At the point its life is finished, and *exactly* at that point, it breaks the end and *automatically* stops spinning. In other words, rolls covered with GILLEATHER spin good yarn right up to the last and when they're through they're through. No second life — no troubles and, what's most important, *no bad yarn.*

• Successful spinners never forget that their job is to spin the best possible yarn with the raw material and machinery at hand. They know from experience that it is a mistaken economy to see how long the top rolls can be made to last. Spinners who always use GILLEATHER don't have to guess — they know when their rolls are finished — for GILLEATHER tells them.

• GILL LEATHER COMPANY, Salem, Mass.

TEXTILE REPRESENTATIVES

Gastonia, N. C. . . Mrs. W. C. Hamner	Griffin, Ga. . . . . B. C. Plowden
Greenville, S. C. . . . . W. J. Moore	Utica, N. Y. . . . William A. Roberts
Greenville, S. C. . . . . Ralph Gossett	Dallas, Texas . . Russell A. Singleton

GILLEATHER

CALF AND SHEEPSKIN FOR

TOP ROLLS

New Concepts for Spun Rayon Yarns

By HAROLD ASHTON, F.T.I.

BOTH in the United States and in Great Britain the production of rayon staple had first been aimed at providing material for use on conventional spinning systems. Until the textile properties of new materials could be assessed and this could only be done following yarn operations, there was no point in trying to develop new equipment or technique to take full advantage of such properties. Also, since the fiber producers visualized their task as that of providing raw materials for other people's spindles, there was not much sense in talking new methods, even if these could have been developed quickly, until profitable volume business should have been secured by the use of existing gear. With this position reached, the possibility of advancement provided the incentive for the development and acceptance of new technique and equipment.

The policy, so far mainly pursued, of fitting the new materials to cotton, wool, flax and silk machinery, has involved all of us in the acceptance of limitations on the ultimate quality and character of spun rayon and finished materials.

As we look around at the various methods of yarn production, we see the results of some 200 years of inventive effort, but we also realize that cotton, wool, flax and silk machinery differ because they have each been built around the physical properties of their own materials and these are all in one way or another conditioned by natural limitations. It is obvious that no existing equipment developed in this way can be ideally suited to take full advantage of all the latent properties of man-made fibers. These can now be produced under such conditions of control as to render length, fineness and other fiber characters matters of arbitrary decision and thus reduce from the status of criteria of commercial value to that of merely incidental interest.

Relatively speaking, the spinner can obtain in wool fiber length but not fineness, in cotton fineness but not length, in flax length but not overall fineness, in silk length and fineness but with a raw material in such a condition as to render processing operations slow, elaborate and expensive. The rayon staple spinner can already command length and fineness in any combination and is within sight of adding superlative strength and also elasticity to this combination.

Need for New Technique and Equipment

To take full measure, in yarns and fabrics, of these fiber characteristics, I submit we must now seriously consider the development of new equipment and specialized technique for the spinning of pure rayon staple yarns, by which I mean all staple straight or blended yarns.

I draw a clear distinction between such yarns and those carrying blends of rayon staples with natural fibers. In these yarns, the immense scope, which we are just beginning to appreciate, the natural fiber content will largely determine the convential spinning system which will be used, but even in this field we must be prepared for some surprising invasions of natural fibers in blends with rayon staples across their existing boundaries. On the other hand the mention of new technique or equipment should not mislead anyone into thinking that immediately ahead lies a period of revolutionary change, involving a lack of commercial stability and the risk of overnight redundancy for machines either in place or about to be installed. There are many problems yet awaiting solution before rayon staple spinning can blossom in its own right, apart from the existence of large scale production commitments which will lead to a spreading out of development. Rather must we look forward to a period of evolutionary change which will in the long view, eventually settle down into a rhythm of advance following each new development or production in rayon staple.

The Machinists' Responsibility

In view of the scope of the interest involved, I suggest we must look to the textile machinists of the world to keep themselves sufficiently well-posted with the character, development and possibilities of existing and potential materials and the goals rayon staple spinners and manufacturers have in mind, to insure by forward development, the existence of equipment to match the opportunity and material possibilities as these arise. From what I have seen both in this country and elsewhere I am sure that when freedom of technical development is restored to the world, we shall not look in vain to the machinists to discharge their obligations to the textile industries which they exist to serve.

What then are the goals of the rayon staple spinner? To be brief, I suggest they are so to marshal our processing technique as to give command in yarn and cloth character of all the potentialities of man-made fibers as these can be affected by staple length, filament denier, strength and other characters. To do this, the ideal rayon staple spinning plant of the future must be capable of processing a range of fiber lengths of from one inch to four inches with filament deniers ranging from at least one to eight, or any combinations of these; with operational costs within those of existing cotton spinning. To achieve this, it is obvious to all textile technologists that our first task must be to work out new methods of sliver assembly. Carding and/or combing rayon staple as we now know it, must be displaced. Our new concept must be a simple sliver-making mechanism.

Much thought has been given to these matters and we are all aware of the progress made so far with tow-to-top conversion. Both fiber cutting and breaking methods have been developed on this principle and so far as the worsted and silk systems go, tow-to-top has already gone a long way to provide an answer. Whether tow-to-top can provide the

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The accompanying paper was delivered this spring before the American Association of Textile Technologists. Mr. Ashton is manager of the Courtlands, Ltd., Arrow Mill in Rochdale, England, and was a member of the recent British Rayon Federation delegation to this country.

complete answer to the problem I have posed above remains to be seen, but it would appear that the cost and difficulty of the operations will increase in the direction where we can least afford it, i.e., in the sliver assembly of fibers of fine denier and regular staple length for pure rayon staple spinning.

Tow-to-top conversion does not however, exhaust the possibilities of simple sliver making. I suggest we must also consider a new conception based on bulk delivery of staple from the producers, and using new methods of fiber dispersion, condensation and sliver assembly. The progress made during wartime in the applications of aerodynamics should prove very useful in this regard. Wind tunnels can have other uses than the perfection of aircraft. The important thing to remember in this conception is the part the fiber producer can play. Just as in the past, the producers were able to provide a form of supply for staple to fit conventional equipment, so in future they will be able when the requirements of the new technique are known, to modify their form of supply in the direction desired. In other words progress will be mutual and co-operative or not at all.

Most Practical Method

As it seems to me, the task of working out modified methods of drafting to deal with the range of lengths and deniers involved will be much less difficult than that of satisfactory sliver assembly, for here known principles can be adapted and arranged. Along these lines it would appear to be possible to realize the full advantage in yarn and cloth character of the intrinsic properties of man-made fibers, including the full scope of blending possibilities and thus provide the textile technologist with another step towards his goal of complete specification and correlation between fibers, yarns and cloth properties and final performance in finished articles.

Just as the development envisaged will depend upon the closest collaboration between the rayon staple producer, the textile machines and textile technologists, so also the complete capitalization of fiber and yarn properties in cloth character will depend upon the closest cooperation and common language between the spinning, manufacturing, finishing and merchandising sections of our industry. Rayon staple is proving a powerful catalytic in the breaking down of sectionalism and bids fair to go much further in this direction. In closing let me say how pleased I have been to note, during the past three weeks, your success in so largely dispensing for spun rayon goods, with expensive finishing treatment by an intelligent use of fiber, denier, length of staple, blend, twist, combinations and where necessary, plied yarn constructions. The future for rayon staple is wide open. As textile technologists, may we rise to our opportunities.

Tufted Manufacturers Organize Association

The Tufted Manufacturers Association was organized at a meeting in Dalton, Ga., May 18, which was attended by 30 manufacturers representing more than 4,000 employees. Carter Pittman, Dalton attorney, was elected president, and Jack Strain of Redwine & Strain, Dalton, was elected vice-president. Directors are Tom Brown of Georgia Textile Co., Calhoun; Mrs. Fannie Lou Bare of C. B. Wood Co., Rocky Face; Fred Westcott of Cabin Crafts, Dalton; W. M. Wiesen of Lawtex Co., Dalton; Sam Hurowitz, Blue Ridge Spread Co., Dalton; L. M. Dellinger, Dellinger Spread Co., Rome; E. J. Moench, Nashville (Tenn.) Tufting Co.; Ira Nochumson, Morril Mfg Co., Dalton; and Joe McCutchen, J. & C. Bedspread Co., Ellijay.

The members voted to employ a full-time secretary to represent the association before the War Production Board in Washington, and to pay dues of $100 a plant, plus 50 cents a quarter for each employee.

Illges Heads Georgia Association

A. Illges, vice-president and treasurer of Swift Spinning Mills, Columbus, Ga., was elected president of the Georgia Cotton Manufacturers Association when the annual meeting of the board of directors was held in Atlanta May 23. Other officers elected were T. M. Forbes, Atlanta, executive vice-president; A. B. Edge, Jr., LaGrange, vice-president; Charles C. Hertwig, Macon, treasurer. New directors elected were E. W. McMillin, Rossville; A. J. Strickland, Jr., Valdosta; D. D. Towers, Rome; and Frank Kimble, Carrollton. The usual convention of the association was not held this year due to war travel restrictions.

Directors of the Textile Education Foundation met at the same time and J. J. Scott, president of Scottdale Mills and Georgia Duck & Cordage Mill in Scottdale, was elected president. Also elected at this time were J. T. Hightower of Thomaston, vice-president, and Frank B. Williams of West Point, treasurer.

South Carolina Association Re-elects Officers

President B. F. Hagood of Easley, S. C., any all other officers and directors of the Cotton Manufacturers Association of South Carolina were re-elected when the annual meeting of the association was held in curtailed form at Greenville May 18. Returning to office with the president are John Cauthen of Clinton, executive vice-president and secretary-treasurer, and S. H. Swint of Graniteville, second vice-president. Re-elected to three-year terms as directors were J. B. Harris of Greenwood, B. B. Gossett of Charlotte, and George M. Wright of Great Falls.

The board of directors proposed a close working alliance on national matters between the South Carolina group and the American Cotton Manufacturers Association, and also voted to transfer the state association's offices from Clinton to Columbia, effective in June. Dr. Williams P. Jacobs of Charlotte, executive head of the American Cotton Manufacturers Association, delivered the principal address, speaking on the future of cotton manufacturing. The following members of the association who died during the year were memorialized: R. Frederick Bell of Rock Hill, Dudley L. Jennings of Spartanburg, Robert E. Ligon of Anderson, and Marshall P. Orr of Rock Hill.

Meetings were also held by the directors of the Sirrine Textile Foundation and the print cloth group. The foundation directors considered routine matters while the print cloth group discussed OPA price regulations as they affect the industry.

Lieut. Edwin L. Finch of Wilson, N. C., who has been stationed on a South Pacific isle for some time, reports that his experiments in cotton growing on the productive island has resulted in cotton which stands 17 feet high. Seeds which were used in his experiments were sent him from North Carolina.

MASTER MECHANICS' SECTION

Notes on Erection of Textile Machinery

By I. M. SHOPMAN

THE manufacture of textile machinery is a precise operation. Shops have invested millions of dollars for modern tools in order to work to very close limits in the production of parts for different types of textile machinery. They have also spent an equal amount to train and maintain mechanics and millwrights who manufacture machinery in the shops as well as erect it in the mills. Thus textile mills have a right to expect the best machinery and service possible. With large packages and increased speeds now desired by mills, it is more important than ever before to use materials which have been highly tested by skilled, trained technicians as to design and accurate working limits.

Machinery is sold to mills F.O.B. shops; therefore, as soon as a car of machinery arrives at the mill and is unloaded, all boxes and crates should be inspected. Parts such as frame work, sampson heads and foot ends, should be checked for breaks or cracks. If any damaged parts are found claim should be made with the transportation company immediately. This not only protects the mill but eliminates future arguments with the carrier. When new equipment is unloaded at the mill it is desirable to have the machinery erector at the mill to supervise the placing of the equipment as it is unloaded, as this will facilitate the actual progress of the erection later on. When starting the erection of any machine actual floor plans for the proper location of each machine should be available, and from this floor plan lines should be scribed on the floor and the machinery placed accordingly.

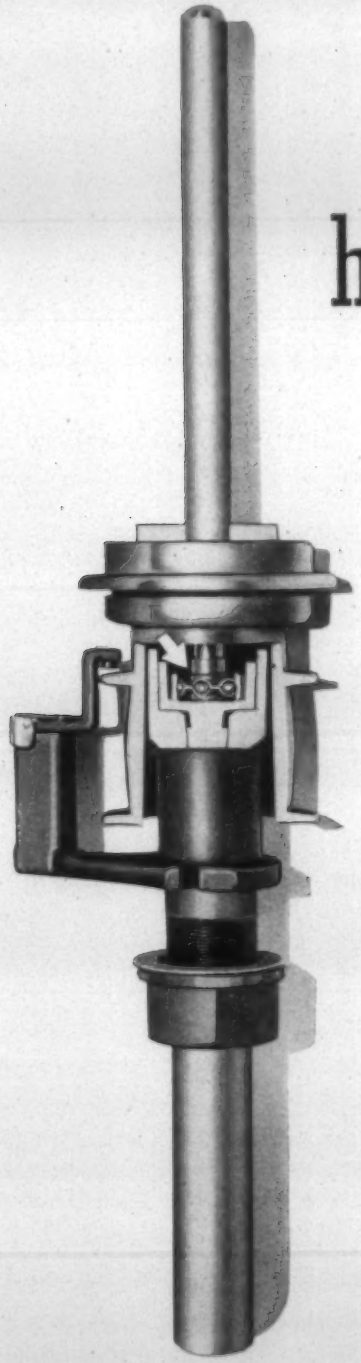
Erectors Are Competent

For the past several years considerable thought has been given to the erection of textile machinery; in fact, machinery manufacturers have maintained schools for special training of mechanics and millwrights in the art of erection. The school courses not only include the teaching of mechanics, but also the fundamentals and complete operation of different machines. Men who are are selected for this work are men who are reliable, industrious, and show an aptitude for this particular kind of work. They have proved that they are capable of doing a complete and satisfactory erecting job from both the standpoint of the mill and the machinery manufacturers. Mill superintendents, overseers and master mechanics should be interested in the following comments on the erection of their equipment:

Opening and Picking Equipment—These machines are usually shipped on skids and in crates, as built at the shops, without being dismantled. Each machine is marked by a serial number in a convenient place. After being taken from the skids and uncrated, the machines should be thoroughly cleaned of slush, oil and grease. In some cases this calls for partial dismantling of certain sections of the machine, with the different sections later being put together according to the serial number. Then the entire machine is placed perfectly level on the floor line, using the highest point on the floor for a starting point; after which all small parts should be installed. When erecting pickers, fan holes are cut in the floor before locating the picker sections. The area of the dust cellar should be five square feet per picker fan. For each condenser fan discharge add to this ten or 15 square feet per fan. Before being put into operation all beater settings and other adjustments are made, all grease bearings filled with a good grade of grease, and the machines well lubricated. Special attention should be given to the lubrication, especially during the first week of operation. This will give the bearings a chance to glaze properly, after which a regular lubrication schedule can be followed. Lubrication during the first week of operation can determine the life and satisfactory operation of new equipment.

Carding Equipment—Cards are shipped boxed and crated, except that frames are packed in the cars. Each card has a serial number and all parts on each individual card are installed according to this number. If this plan is not followed the parts will not fit properly and will cause considerable trouble when operation is begun. First, floor lines are drawn for the location of the cards; then the frame sides are put in place and the middle cross girt for holding the frame sides is bolted to them. Either the back or the front cross girt is then installed, depending on whether the cylinder is to be installed from the front or the back of the card. When the frame work is up and the frame is located to the floor lines the cylinders are rolled into the frame and the remaining cross girt is put into place. The cylinder bearings are then installed and the cylinders lifted into its bearings. Doffer bearings are then fastened to the side of the frame and the doffers lifted into place. The card arches are then installed on the frame sides. It is at this point that the cards should be leveled, using a water level and starting from the high point of the floor. After lining and leveling the card, the driving pulleys are installed and belted so as to revolve both the cylinder and the doffer for the purpose of removing the paint and foreign particles from the surface of the cylinder and doffer. It is also desirable while the cylinder and doffer is revolving to dull their surfaces with fine emery cloth. All of this will allow a perfectly clean surface before installing the card clothing;

2-Directional Support for high speed heavy twister spindles



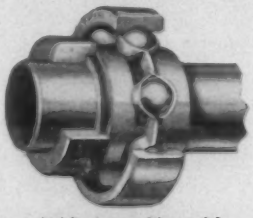
The spindles the Whitin Machine Works make for extra heavy twisters require a bearing that will carry a heavy load vertically and horizontally . . the *thrust* load of a large yarn package and the *radial* load of the tape pull.

Past experience prompted Whitin to turn to Fafnir for bearing recommendations. The answer was simple. Fafnir's Balanced Design – larger balls and deeper races – made it possible to use a standard single row radial bearing to handle both the *thrust* and *radial* loads.

Fafnirs are stepping up production and holding down costs on a variety of textile jobs . . . for example, in high-speed twisters, looms, winders and slashers. They are putting extra smoothness and efficiency into many critical turning points where ball bearing speed is vital to quantity with quality. Fafnir service engineers will gladly tell you more about this performance. The Fafnir Bearing Company, New Britain, Connecticut.

Types of Fafnir Ball Bearings Widely used on Textile Machinery

Single Row Radial



Wide-Inner Ring with Self-Locking Collar

Mechani-Seal

★ 2182

FAFNIR

BALL BARINGS

Most Complete Line in America

the cylinder clothing is first drawn on the cylinder with 300-pound clothing machine pressure. The clothing should remain on the cylinder overnight in order to remove the initial stretch. The following day this clothing is removed from the cylinder, the tapers pulled and cut on the clothing, then redrawn at a pressure of 400 pounds, which is equivalent to 50 pounds per row of clothing. The card doffer is drawn only once at a pressure of 300 pounds, which is also equivalent to 50 pounds per row.

Temperature Needs

When starting to clothe the cards the cylinders and doffers should be thoroughly warm and at a minimum room temperature of 65°. This prevents the clothing from coming loose in later years. The cards are then ground until the high places on the clothing are level all the way across the cylinders and doffers, and the clothing teeth have been ground to the edge desired. The card is then ready for assembly of the other parts. When installing screens, mote knives, flats and plates, all settings should be left pulled away from the clothing until such time as the erection of the card has been finished. It is at this point in erection that all adjustments are made on the cards. These should be set to .012 gauge throughout the card, so that clothing will not be damaged on either the flats or cylinders while the card is being erected. Before starting, however, the flat should be set to the proper gauge for the grade and staple length of the cotton to be used. Be sure that the bearings as properly lubricated.

Drawing—Drawing machines are shipped assembled in single heads on skids, except for small parts in boxes. It is generally known that drawing, when shipped assembled, is top heavy. Machinery on skids should be handled very carefully to prevent tilting. The serial numbers are stenciled at the head end of each head on the front of the roll beams, and will distinguish the different heads that are to be bolted together to make up one or more frames.

After the drawing has been located on the floor lines it is then thoroughly cleaned. To do this it is necessary to remove the bottom rolls and calender rolls, as these cannot be cleaned satisfactorily while in the machine. When the drawing has been thoroughly cleaned, it is lined and leveled and then the main driving shaft is installed. Usually the drive shaft runs the entire length of the frame and all bearings should be properly fitted and bolted so that the line shaft turns freely without hitting the bearings. The can tables are installed in line with the frame of the drawing, and leveled; build a satisfactory can that will not cause tangled sliver when pulling out of the can on the roving frame. To locate the can table the can should be placed in the exact center of the tube gear. To do this it is necessary to plumb from the edge of the two gear blades one-quarter inch from the center of the turn table edge. In leveling the can table special attention should be paid to the distance between the top of the can and the tube gear, which should not be more than three inches. It is very essential that the proper roll settings be made for the staple of cotton that is to be used. In setting the rolls special attention should be given to the tightening up of the cap screws which hold the roll stand slides. If these cap screws are not properly tightened, the roll stand slide may move, which would cause the bottom rolls to bind later on, crystallize and break. One of the most essential points in erecting drawing is the fact that it must be thoroughly cleaned before starting. Drawing that it must be thoroughly cleaned before starting.

Roving Frames—Roving frames are built in the shops on steel skids, which are kept in proper level and alignment; most of the parts are fitted and installed on each individual frame. All parts are properly marked with serial numbers and packed in boxes. The outside of the box is marked with the serial number and the box number. However, in packing in cars, the sampsons, head and foot ends, roll beams, and step rails are packed and braced in the cars. The bolster rails are packed in crates so as to protect the bolsters. Before starting the erection of roving frames in the mill, the floor lines are put down, and it is general practice that either tin or zinc, preferably zinc, is laid the width of the frame up to and including the lifting mechanism. From this point on to the foot end the zinc is used only under the bolster rail, but also extends out approximately 12 inches from the head of the frame underneath the driving pulleys.

After the zinc has been put down, the sampsons, head and foot ends are assembled together with the roll beams and spindle step rails. The frame is then lined and water leveled. The sampsons are plumbed with the use of a level perpendicular located on the sampson slides. Proper alignment of the sampsons in turn assures perfect alignment of all shafts running the length of the frame. The under work, which includes cones, lifting mechanism, compounds, etc., is then installed, after which the bolster rail is assembled. The spindles are then put in place and the bolster rail run to its lowest point. The purpose of the bolster rail in this location is to insure free turning spindles, which means that if the spindles are free at this lower point they will be free at the entire length of the travis of the bolster rail. During this period the bobbin and spindle shafts and gears are installed and both the bobbin and spindle gears properly set to the shaft gears. All bobbin and spindle shaft bearings are lubricated with the proper viscosity grease. The frame is now ready for the installation of the bottom steel rolls. However, before starting the installation of these rolls it is quite necessary that when unpacking the rolls from the boxes that they be handled very carefully to prevent nicking or bruising of the roll flutes. The rolls should be thoroughly cleaned before installing in the frame. After being cleaned they are dried thoroughly with spanish whiting dusted on hard waste. After the rolls have been installed, the roll stands are lined and rolls tested for free movement in the roll stands. At this point the bottom steel rolls are properly set for the length staple stock that is to be used. The top clear lids are then applied along with the top roll cap bars. The cap bars are set so that the top rolls will correspond with the bottom roll setting, except that the front top roll is set approximately 3/32 forward off center of the bottom steel roll.

Testing New Machinery

The creels are then assembled and adjusted to the desired height, after which the builder mechanism is set so that the bolster rail traverses the desired length for covering the empty bobbin. The proper draft twist and lay change gears are installed for the desired hank roving to be made. When every moving part of the frame has been well lubricated the driving belt is then installed and the frame is ready for operation. It is very—*(Continued on Page 50)*

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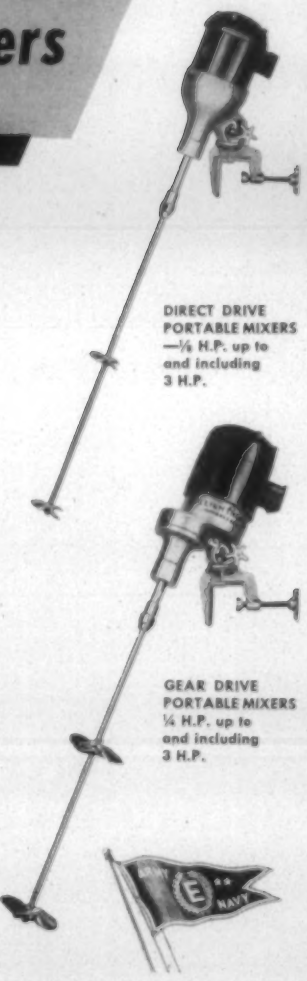

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The Case At Gaffney

IT IS entirely possible that the question of whether or not we are a nation of free men or are to live under a system of Gestapo control may be decided at Gaffney, S. C.

The Gaffney Mfg. Co. has been seized by the Army, not because it had mistreated its employees, had refused to pay current wages or had refused to make any of the war goods it was asked to produce. The mill had asserted its right to employ persons who were not members of a union, and had refused to agree to discharge employees who ceased to pay union dues. It had refused to act as a collection agency for the union.

When the Army was ordered to take over the Gaffney Mfg. Co. it had no choice other than to obey the command and no blame or criticism can be directed at that branch of the military service.

In September, 1943, the Gaffney Mfg. Co. signed a contract with the union upon a voluntary check-off basis. The portion of that contract referring to the check-off was as follows:

SECTION 12. VOLUNTARY DEDUCTION OF DUES.—It is agreed by the company that wage deductions will be made for employees who have voluntarily signed or may hereafter voluntarily sign a card authorizing deduction of union dues. No amount in excess of the sum stated in the signed authorization will be deducted. Provided, that such authorization may be revoked at any time from the date of this agreement by giving ten (10) days' notice in writing by registered mail to both the company and the union. It is understood that no dues will be deducted for any week in which any employee does not earn any wages. Dues collected will be remitted to the designated secretary of the union.

This provision irked the Gaffney representative of the Textile Workers Union of America because it enabled employees to decide for themselves whether or not they would quit paying dues and caused him some work other than calling at the mill office and receiving his "take."

On July 12, 1944, two months before the expiration of the contract, the union representative sent the following letter to the Gaffney Mfg. Co. (We are placing in italics the paragraph relating to the cancellation of the contract.)

Section 13 of the agreement which we have with your company covering employees of Gaffney Mfg. Co. reads as follows:

Section 13. "This agreement shall remain in full force and effect from the date through Sept. 14, 1944, and from year to year thereafter unless terminated by either party. If either party desires to terminate or modify this agreement at any termination date, such party shall give to the other party written notice sixty (60) days prior to such termination."

The union desires to terminate its agreement as provided in Section 13 herein above referred to. This letter is for the purpose of serving written notice to the company of its desire to terminate said agreement.

In order to expedite matters and avoid a re-occurrence of prolonged negotiations as in the past, the union will within the next few days submit to the company its proposal for a new agreement.

The writer along with the shop committee of Local Union No. 269 hereby requests that upon receipt of proposal by the union a conference be granted at your earliest possible date to discuss this matter.

Very truly yours,
TEXTILE WORKERS UNION OF AMERICA,
By C. D. Puckett, Representative.

This letter very definite cancelled, as of Sept. 14, 1944, the contract which was to expire on that date and stated that an entirely new contract was to be negotiated. Later, by mutual consent the existing contract was extended to Oct. 14 and then to Nov. 19, but the "cancellation at expiration" as made by the official representative of the Textile Workers Union of America was never withdrawn nor was the demand for a *new* contract and no contract existed after Nov. 19, 1944, a fact that was deliberately and purposely ignored by the War Labor Board and its panel.

The new contract as presented by the union leaders demanded an involuntary check-off, maintenance of membership and a closed shop. The leaders expressed no dissatisfaction with wages or working conditions. The management refused from the beginning to include any of the above provisions in the new contract.

During the negotiations, Walter Montgomery and his organization had retired from the management of the Gaffney Mfg. Co. and had been succeeded by W. A. L. Sibley of Union, S. C., and his associates. The new management applied to the War Labor Board for permission to establish "vacation with pay" but was advised that permission could not be given unless it was approved by the union and the union advised that it would not approve unless the provision was included in a contract which contained involuntary check-off, maintenance of membership and the closed shop.

As negotiations, which were begun in July, were getting nowhere, and in order to put the matter squarely up to the union which seemed to be interested only in provisions which would make its work easier and increase its collection of dues, Attorneys Price & Poag of Greenville, S. C., under direction of the management of Gaffney Mfg. Co., wrote the following letter to C. D. Puckett on Nov. 27, 1944:

On the 12th day of July, 1944, you addressed a letter to the company, notifying it that the union, which you represent, desired to terminate the contract then in force and effect between it and the company when it expired on Sept. 14, 1944. By mutual consent the contract was extended to Nov. 19. In the meantime negotiations were entered into between the union and the company. No agreement could be reached and the matter was referred to the War Labor Board. On Nov. 16 the board directed the parties to renegotiate.

Representing the company, we met with you at Spartanburg on Nov. 22 and again today at which meetings you submitted certain proposals, containing among other things, a "closed shop" and an involuntary "check off" of union dues. The company proposed to renew the present contract without voluntary deduction of union dues. Both the company and the union insisted on their proposals so no agreement was reached.

The company realizes that we are engaged in fighting a war for the survival of our democratic principles and way of life. Everyone has some loved one on the far-flung battle fronts of the world. This is no time for dickering and bickering. All of us should be devoting our every effort to winning the war as quickly as possible. With this thought in mind the company has no desire or intention to prolong these negotiations. Therefore, we wish to notify you here and now that the company does not intend to agree to a contract containing provisions which it considers un-American and undemocratic. The company has no objection whatsoever to its employees joining any organization, which they may desire to belong to, whether it be religious, civic, social, patriotic, or labor. But the company does not intend to be a party to forcing them to join any particular organization or to maintaining their membership if they wish to resign. Nor does it propose to permit any organization to make a collection agency of it.

The company is writing you this letter and posting a copy of it on the bulletin board so that there may be no misunderstanding by anyone, especially any employee, of its position in this matter.

Very truly yours,

PRICE & POAG,
Attorneys for Gaffney Mfg. Co.

The Gaffney Mfg. Co. was then cited to appear before the Regional War Labor Board at Atlanta, Ga., but steadfastly refused to enter into a contract which included either the check-off or the closed shop. They were then cited to appear in Washington, D. C., before a panel of the War Labor Board consisting of Nathan Feinsinger, public member and chairman, Carl Shipley, representing labor, and Charles Roberts, representing industry.

When the attorneys for the Gaffney Mfg. Co. called attention to the fact that the Court of Appeals of the District of Columbia had held that orders of the War Labor Board are merely "advice" which no one has any legal duty to obey and that anyone who refused to comply with orders of the War Labor Board was not defying a command of the government because the orders were merely advisory and no government official had the right to impose punishments on those who do not comply and that the Supreme Court had refused to alter that decision, members of the panel, especially the industry member, Charles Roberts, who was from somewhere in the North, became both abusive and insulting.

After the contemptible group composing the panel had exhausted its supply of abuse and misstatements they advised the mill attorneys that if they would show the record of the hearing to the mill officials they were certain that they would agree to sign the contract desired by the union.

A few days later, on March 23, 1945, Attorneys Price & Poag wrote the following letter to Nathan Feinsinger:

Acting upon your suggestion we have submitted a transcript of the proceeding before the board to the local executive officers of the Gaffney Mfg. Co., for their consideration, and we wish to report their conclusions.

An impartial examination of the record reveals that there is but one issue involved in the present controversy between the union and the company, to-wit: will the company, over its protest, be coerced by the board into continuing in effect the "check-off" provision in a contract, terminated by the union, which on principle is objectionable to the corporation.

Your board is presumed to occupy the position of an impartial arbiter between contending factions in labor disputes. Yet in this case apparently the union is to be upheld in the exercise of whatever legal rights it may have in the premises, and completely exonerated of any blame or fault in creating and precipitating a controversy which is artificial and deliberately provoked to the detriment of the war effort, while on the contrary the legal position of the company is disparaged and its motives and patriotism impugned.

The board should not encourage the union in its effort to entrench and extend its security behind the thin veil of the present emergency.

We assure you that the personnel of the company management yields to no individual, group, or organization in their devotion to the cause for which our country is waging this terrible war, but they are determined that they will not be a party to sacrificing here at home the very principles for which we are fighting for abroad. Unless we are completely mistaken one of the very bed rocks on which democracy is founded is the inalienable right of free men to freely and voluntarily contract.

The contract between the union and the company was such a covenant. The union exercised its legal right to terminate this agreement. The board justifies this action by the union, but then takes an utterly inconsistent position and "directs" that the contract be revived and continued over the objection of the company, one of the contracting parties. The board knows full well that its orders are merely "advisory" and have been consistently held so by the courts, even the Supreme Court of the land. When the company declines to accept and abide by this "advisory" directive it is then threatened, cajoled, ridiculed, and warned of retaliatory action by way of confiscatiton of its property or "economic sanctions," because it has exercised its rights under the law to refuse to become a party to an agreement not voluntarily and mutually assented and consented to before becoming bound by the terms thereof.

We take the position that such action by the board would amount to a deprivation of our rights under the Constitution, which provides for and protects the right of free men to contract with impunity, within the limits of the law.

Our position is based on principle. We refuse to become a party to a provision for "check-off" of union dues in a contract or directive order which has for its only purpose union convenience and security.

There are numerous misstatements of fact in the transcript of the hearing, held on March 14, 1945, but in view of the issue involved, we do not deem it necessary to discuss them in detail and unless they were at the hearing admitted, they were denied.

Therefore, we wish to respectfully notify you that the local management of the Gaffney Mfg. Co. declines to reverse its position and accede to the directive of the board.

Respectfully submitted,

PRICE & POAG,
Attorneys for Gaffney Mfg. Co.

The union then asked for a strike vote and the War Labor Board, although they knew that no question of wages or working conditions was involved and the only object of the strike was to add to the union organizer's collections by installing the "involuntary check-off" and "maintenance of membership," authorized a strike vote and the disruption of the production of a mill making much needed war goods.

The strike vote was ordered for May 4, and on May 3 the Gaffney Mfg. Co. was notified that it had been added to the "23 mills group" which had been ordered to install the 55-cent minimum wage.

Although the Gaffney Mfg. Co. was not so advised until May 3, the union had been given the information on the previous day in time to prepare and distribute the false statement that the 55-cent minimum wage and "vacations with pay" which the mills had offered but the union had refused to approve, would not go into effect unless the strike vote carried. Under that false appeal the strike vote did carry by a vote of 436 to 192.

Had a mill used anything remotely approaching any such tactics in order to prevent a strike vote from carrying, the War Labor Board would have arisen in great wrath and ordered a new election but when such underhand tactics are used by a union, there seems to—*(Continued on Page 46)*

MILL NEWS

CONSTRUCTION. NEW EQUIPMENT. FINANCIAL REPORTS. CHARTERS. AWARDS. VILLAGE ACTIVITY. SALES AND PURCHASES

GRANITE FALLS, N. C.—Controlling stock in Dudley Shoals Cotton Mill has been acquired by Alex A. Shuford of Hickory, N. C., and Julius W. Abernethy of Newton, N. C.

GREAT FALLS, S. C.—The U. S. Supreme Court has refused to review the decision of the U. S. Circuit Court of Appeals, Fourth District, involving a claim for a refund of processing taxes of $435,340 made by Republic Cotton Mills against the commissioner of internal revenue. The Court of Appeals, in its decision, had directed U. S. Tax Court to consider Mill No. Three as a separate business from Mills One and Two. It also directed the Tax Court to reconsider and reweigh facts as to Mill No. Three, indicating there was basis for refund of the tax. It also directed the U. S. Tax Court to consider separately all the evidence with reference to Mills Nos. One and Two, despite a favorable marginal computation in favor of the government and directing in its redetermination whether the company bore the burden of a part of the tax which was paid.

ANNISTON, ALA.—The Woodstock Spinning Corp., with 5,000 spindles and 100 looms, has been purchased by H. S. McIntyre of Charlotte, Stanley Rygles and Bernard West of New York, and reorganized as Amber Textile Mills, Inc. The officers are: H. S. McIntyre, president; Stanley Rygles, secretary and treasurer; and John Adams, superintendent. Mr. McIntyre recently sold his mill at Patterson, N. C.

GAFFNEY, S. C.—All departments of Gaffney Mfg. Co., which was closed by strike May 14 and which was taken over by the Army under a Presidential directive May 28, are again in operation. Capt. Halbert M. Jones, who operated Waverly Mills, Inc., and Scotland Shirting Mills, Inc., of Laurinburg, N. C., before he entered the Army, is in charge of operations.

WAKE FOREST, N. C.—A court battle over division of profits of the Royal Cotton Mill Co. has been concluded in Wake Superior Court with the signing of a consent judgment, and announcement has been made that control of the mill has passed into the hands of Willis Smith, Raleigh, N. C., attorney, and B. E. Jordan of Saxapahaw, N. C. Mr. Jordan is president of the Sellers Mfg. Co. and is widely known as a textile executive. Mr. Smith, one of the plaintiffs in the suit to wrest control of the mill from Don P. Johnston, Lewis D. Smart and their associates, and Mr. Jordan have purchased all common stock in the mill not already owned by Mr. Smith, his wife and his mother. Under the new set-up, Mr. Jordan is president of the company and Mr. Smith is vice-president. The board of directors will consist of these two officers, K. M. Jordan and Willis Smith, Jr. Under terms of the consent judgment, Mr. Smart is to be refunded a difference in salary withheld from him by a previous temporary injunction, and Johnston & Co., the brokerage firm set up by Don P. Johnston to sell the mill's products, is to get the accrued sales commissions on deliveries actually made during the litigation.

RUTHERFORDTON, N. C.—The Excelsior Mills of Union, S. C., has announced plans for opening a plant in the old Cleghorn Mill building in Rutherfordton at an early date. The company will be on war production for the remainder of the war, and will then convert to women's dress goods and suitings. The plant is being remodeled and will employ at least 120 persons on three shifts. The superintendent will be William Cuiley, who is now assistant superintendent at Union. Officers of the company are: F. G. Kingsley of New York, president; Roger Milliken of New York, vice-president and treasurer; H. E. Williams of New York, secretary; and Peter B. Haynes of Union, vice-president and general manager.

GREENSBORO, GA.—President Truman, on June 1, ordered the Army to seize and operate the plants of Mary-Leila Cotton Mills, Inc., the executive order stating that the war effort is being "unduly impeded" by existing interruptions of operation as the result of a labor dispute. The regional War Labor Board had directed that an agreement with the Textile Workers Union of America be extended pending negotiation of a new agreement. The company, following a public hearing before the National War Labor Board last April, advised the board that it would not comply with the maintenance of membership and check-off provisions of the expired agreement. In a vote last March, the union voted 185 to 27 in favor of a strike, which began April 2.

RALEIGH, N. C.—Certificates of incorporation have been granted Sedgefield Mills of Greensboro, N. C., to deal in textile goods, and Hampton Mills of Troutman, N. C., to deal in goods and fabrics of all kinds. Authorized capital stock of Sedgefield Mills was listed at $100,000, with stock of $400 subscribed by Sidney J. Stern, Flora O. Stern and William Stern, all of Greensboro. Hampton Mills was chartered with authorized capital of $1,000,000, and incorporators are J. E. Kale of Lincolnton and Elizabeth H. Harris and H. M. Jones of Charlotte.

GREENVILLE, S. C.—Table Rock Fabrics, Inc., is a newly organized concern to buy and sell cloth and cloth remnants, and also to engage in converting and finishing cotton, rayon and other fibers. Officers are: J. McD. Law, president and treasurer; Robert E. Buck, Jr., vice-president, and M. C Patton, secretary.

SALISBURY, N. C.—A 5,000-spindle cotton yarn mill is expected to be running within 90 days in the former exhibit space beneath the grandstand at the Rowan County fair grounds, according to an announcement by the brothers George M. and Robert McCanless of Salisbury. The McCanless brothers, together with H. N. Fairley of Salisbury and Aaron J. Schindel of New York, are incorporators of the new mill, which will be known as the Victory Mills. Necessary machinery is understood to have been purchased for the company, which has been chartered with authorized capital of $200,000.

Promotions, Resignations, Elections, Transfers, Appointments, Honors, Notes on Men in Uniform, Civic and Associational Activity

PERSONAL NEWS

Hines Samuel Richardson has been promoted to superintendent of weaving with S. Slater & Sons, Inc., Slater, S. C., and his former post of superintendent of weaving in Weave Room No. 1 has been taken over by Robert L. Sartain.

James W. Cox, for the past 11 years associated with William Iselin & Co. and Iselin-Jefferson Co. in general charge of technical and engineering matters and also as president or vice-president of various mills associated with these New York firms, has resigned to return to his former practice of consulting textile engineer. His office will be at 320 Broadway, New York.

John F. Matheson of Mooresville has been appointed to a three-year term on the board of trustees of the North Carolina Vocational Textile School, Belmont. Odus M. Mull of Shelby, chairman of the board, J. Harold Lineberger of Belmont, C. A. Cannon of Kannapolis, Frank L. Jackson of Davidson and Carl A. Rudisill of Cherryville were reappointed.

By mutual agreement between Reeves Pulley Co. of Columbus, Ind., and Cook & McSpadden, the agency for Reeves motor accessories in the Charlotte territory, has been transferred to the M. R. Snyder Co., 1715 Liberty Life Bldg., Charlotte 2, N. C. The object of this change, according to officials of the Reeves company, is to have a service engineer located in the territory who will give his undivided attention to the sales and servicing to Reeves drives, and will be subject to call at any time. Mr. Snyder, left, is thoroughly familiar with all Reeves products, having been in the New York office of the company for eight years and in the Cleveland office for five years, engineering new installations and servicing old ones.

John W. Clark, president of Randolph Mills, Inc., Franklinville, N. C., and Locke Cotton Mills Co., Concord, N. C., has been elected president of the General Alumni Association of North Carolina State College.

David Gottlieb, for the past five years executive vice-president of M. Lowenstein & Sons, Inc., has tendered his resignation, effective June 1, to enter business for himself. Details of his future plans have not been revealed. Mr. Gottlieb also resigned as executive vice-president of Rock Hill (S. C.) Printing & Finishing Co., and other mills.

Ernest Shumate has resigned as superintendent of Fickett Cotton Mills, Inc., Whitehall, Ga.

Election by the board of directors of three vice-presidents to head the treasury, law and patent departments, and lamp manufacturing and lighting equipment divisions of Westinghouse Electric Corp. has been announced. The new officers are L. H. Lund, who has been treasurer since 1941; William E. Miller, who has been attorney general in charge of the law and patent department since 1944, and Ralph C. Stuart, in charge of the lamp and lighting divisions. Mr. Lund and Mr. Miller have their offices in Pittsburgh, Pa. Mr. Stuart will administer the four plants of the lamp division at Bloomfield, Belleville and Trenton, N. J., and Fairmont, W. Va., and the lighting division's Cleveland plant from the lamp division headquarters at Bloomfield.

The appointment of Dr. David M. Gans, left, as technical director, has been announced by Quaker Chemical Products Corp., Conshohoken, Pa., developer and manufacturer of chemical specialties for the metal working and textile processing and finishing industries. Dr. Gans has already entered upon his duties, which include the supervision of Quaker's research, service and control laboratories. Dr. Gans received his Ph.D. degree from the University of Chicago in 1929 and remained with that institution in the department of chemistry until 1935, at the same time engaging in chemical consultant work. In the fall of 1935 he joined Interchemical Corp., being associated first with the color and pigment division and later with that corporation's central research laboratories, where he served as assistant director of research from 1939 until he resigned May 1 to go with Quaker.

Appointment of Dr. W. Gluesenkamp and Dr. James H. Lum as assistant directors of research of Monsanto Chemical Co.'s central research laboratories in Dayton, Ohio, has been announced. Dr. Gluesenkamp, formerly group leader in charge of synthetic detergent investigations, was placed in charge of all organic chemistry research groups, while the responsibilities of Dr. Lum, director of two war research projects, were extended to include all inorganic chemistry research, physical chemistry research and physics research.

G. P. Vincent, left, manager of the sales development and technical service department of the Mathieson Alkali Works, New York, has been appointed to the newly created position of technical director. In addition to his former duties, he will direct

research and technical development and advise on technical matters concerning plant operation. In these latter capacities he succeeds R. E. Gage, right, who was director for research and development for Mathieson for 14 years, and has now been appointed technical advisor for the company. These appointments were announced by G. W. Dolan, president of Mathieson.

Truman P. Handy, well known in the textile industry as a former official of Celanese Corp. of America and for war service with various Federal bureaus, has retired as vice-president of Celanese Plastics Corp. He plans to reside at his farm near Lyme, Conn.

WITH THE GOVERNMENT—Thomas K. O'Neill has succeeded Herbert Walmsley as acting head of the cotton goods section, textile branch, Office of Price Administration. . . . Benjamin M. Seiger has resigned as assistant director in charge of operations for the textile, clothing and leather bureau of the War Production Board. . . . E. R. Metcalfe has been named as WPB's reconversion chairman for the textile industry.

WITH THE MILITARY—Lieut. Frank W. Smith, Jr., son of the superintendent of the McKinney plant of Texas Textile Mills, is no longer missing in action, according to a report reaching his parents. Lieutenant Smith was attached to the Fifteenth Air Force until February, when he was reported missing. . . . Capt. Walter Schwartz, Jr., son of the president of Proctor & Schwartz, Inc., Philadelphia, has been released from a German prison camp. . . . E. S. Bowers, Jr., officer in charge of the woolen cloth section at the Philadelphia Quartermaster Depot, has been promoted to the rank of captain. . . . Frank J. Upchurch, formerly a textile engineer at Charlotte, has been promoted to

—(Continued on Page 40)

Classified Department

POSITION WANTED—Have had 22 years' practical mill experience; cotton and waste, twines and yarns. 10 years as General Overseer. Would like to contact mill needing as Assistant Superintendent or General Overseer. Address "Box 13," care Textile Bulletin.

DESIRE JOB as Overseer or Assistant Overseer of Weaving Department. 22 years' experience on plain and fancy work. Drapers and C & K looms. Now employed but would like to make a change. 40 years old; draft status 4-A. Can furnish good recommendations. Address "S-T," care Textile Bulletin.

POSITION WANTED as Master Mechanic, or Assistant Plant Engineer, by man with 20 years' experience as machinist and electrician in textile mills. 35 years old. Can furnish references. Address "24-F," care Textile Bulletin.

WANTED—Position as Overseer of Spinning in either of the Carolinas. At present Assistant Overseer with four years' experience on present job. Write "J-C," care Textile Bulletin.

POSITION WANTED—Head Loom Fixer and Assistant Foreman wishes to make a change. Plain or dobbies. References. Write "X-7," care Textile Bulletin.

WANTED—Position as Cloth Room Foreman. 15 years' experience as worker, assistant overseer and overseer of cloth room. Experienced on prints, drills, sheetings and Army duck. Am Christian and can furnish best of references as to character and qualifications. Interested in contacting good mill; prefer some place in Spartanburg County or vicinity. Write "Foreman," care Textile Bulletin.

WIDELY EXPERIENCED rayon crepe and hosiery throwster desires connection with a reputable concern. References. Write "Box 101," care Textile Bulletin.

SUPERINTENDENT of Yarn Mill seeks position in Southern States. Past eight years superintendent and general manager of North Carolina yarn mill. Presently employed; seek change. References. Address "W-15," care Textile Bulletin.

WANTED—Position as Overseer of Cloth Room. Have had 11 years' experience; can furnish good references as to character and ability; draft exempt. Prefer job in Spartanburg, Greenville area. Address "E. E. E.," care Textile Bulletin.

WANTED

Time study and job simplification expert by large textile plant located in South. Good permanent position for right man.

Write "Box F-16,"
care Textile Bulletin.

ROLLER SHOPS, ATTENTION
SLIPPER WIRE

I have a limited supply of excellent Slipper Wire. Write me.

MILTON G. SMITH
1201 Augusta St. Greenville, S. C.

Index to Advertisers

Cotton Spinning Machinery for Sale

SPEEDERS

Make	Age	Size Bobbin	Gauge	Type Rolls	No. Frames	Sps. Each
Saco-Pettee	1906	7x3½	5¼	Cork	8	152
Saco-Pettee	1909	"	"	"	2	152
Saco-Lowell	1915	"	"	"	1	152
Saco-Lowell	1918	"	"	"	2	152
Saco-Lowell	1924	"	"	"	3	152
Saco-Lowell	1916-18	"	"	Leather	14	160
Whitin	Serial 1332	8x3½	5½	Leather	6	160

SPINNING: (All Band Drive 7½" Traverse)

Make	Guage	Ring Size	No. Frames	Sps. Each
Saco-Lowell	2¾	1¾	6	240
Saco-Pettee	"	1¾	13	240
Saco-Pettee	"	1¼	1	224
Saco-Pettee	"	2 3/32	7	240
Saco-Pettee	"	2 1/32	29	224

We also offer miscellaneous bobbins and spools for the above frames. If interested in any of the above equipment, please address your reply to "Box A-T," care Textile Bulletin, Charlotte, North Carolina.

PERSONALS

(Continued from Page 36)—

the rank of captain. His present Army assignment is as liaison officer with a Chinese division in the China-Burma-India theatre.

Alexander J. May, who for a number of years has been vice-president of Deering Milliken & Co., Inc., New York, in charge of the merchandising of sheets, pillowcases and wide sheetings, is now with that firm's rayon and fine combed goods department in an executive capacity. In his new post Mr. May will work in conjunction with Henry Neubert, vice-president, who is in charge of that division. Mr. May succeeds Gardiner Hawkins, who recently resigned to become associated with the Rayon Producers Group.

Charles G. Price, formerly industrial application engineer with the Westinghouse Electric & Mfg. Co., has become associated with the Odell Mill Supply Co. as application engineer, with headquarters at Greensboro, N. C. Mr. Price graduated from Texas A. & M. College in 1930 with a B.S. degree in electrical engineering. He immediately became affiliated with Westinghouse and after serving an apprenticeship with special instruction through the firm's factories, he became a commercial engineer with the company in 1932. He was employed in the Atlanta and Charlotte offices until transferred to Greensboro as a field industrial engineer in 1939.

John H. Senior, long-time authority on fiber production and textile machinery, has been elected vice-president in charge of textile machinery sales for Proctor & Schwartz, Inc., Philadelphia, manufacturer of textile machinery and industrial drying equipment, and George W. O'Keeffe has been named vice-president in charge of dryer division sales. Mr. Senior began working for his present company when very young and has worked his way into a position of prominence in the industry. Mr. O'Keeffe, a graduate of Stevens Institute of Technology, joined the company soon after World War I.

Fred Mueller, left has been elected vice-president of Corn Products Refining Co. Mr. Mueller joined the the company in 1902 and was made vice-president and director of Corn Products Sales Co. in 1934. He was appointed general sales manager of Corn Products Refining Co. in 1944. Corn Products Sales Co., which distributes textile starches for Corn Products Refining Co., has branches at Greensboro, N. C., Atlanta, Ga., Birmingham, Ala., Greenville, S. C., and Spartanburg, S. C.

Kenneth Russell Fox of the faculty of Massachusetts Institute of Technology has been selected by the trustees of Lowell Textile Institute to assume the presidency on the retirement in June of Charles H. Eames. Mr. Eames is retiring after long service to the textile school, having been an instructor for several years and head of the institute since 1907.

Walter R. McKinney, left, has been appointed sales representative for the lamp division of Westinghouse Electric Corp. with headquarters at the Westinghouse Bldg., 210 E. Sixth St., Charlotte. He is in charge of fluorescent and incandescent lamp sales in North and South Carolina. Mr. McKinney was employed as a representative of Glascow-Stewart & Co., Charlotte, before becoming associated with Westinghouse. He served in the Army during the present war, having recently received an honorable discharge.

Earl N. Felio, assistant treasurer and general credit manager of Colgate-Palmolive-Peet Co., has succeeded Nash S. Eldridge of J. P. Stevens & Co., Inc., as president of the New York Credit Men's Association. H. P. Reader of Cannon Mills, Inc., is first vice-president of the group.

Spencer Brownell, Jr., an attorney in the legal department of E. I. du Pont de Nemours & Co. since 1931, has been appointed special assistant to W. S. Carpenter, Jr., president of the company, effective June 1. Mr. Brownell succeeds Dr. C. Lalor Burdick, who has been appointed chairman of the board of Cia Mexicana de Explosivos, which operates a commercial dynamite plant in Mexico, and chairman of the board of Du Pont S. A., general sales office for other Du Pont products in that country.

Mill Officials Are Victims of Shooting

An employee of Fitzgerald (Ga.) Cotton Mills who "thought he had been mistreated by foremen and started out to get revenge" is charged by police authorities with the fatal shooting of two men and the critical wounding of a third at the plant May 22.

The worker, Willis Barnes, is said to have met Overseer James Clark in front of the mill and to have shot him four times. Police report that he then went into the mill office and started toward J. H. Mayes, vice-president and manager, wounding Mr. Mayes' son, Garbert, who went to his father's assistance; Barnes then reloaded his revolver and went to the plant, where he met J. B. Peacock, a second hand, and shot him three times. Barnes, when arrested later, told officials that he intended to shoot himself but that his gun jammed.

Both Mr. Clark and Mr. Peacock, each married and the father of three children, died as the result of their wounds. Garbert Mayes was wounded in the abdomen and taken to a hospital in a critical condition. It is reported that he will recover.

Mohair Has An Interesting History

(Continued from Page 20)—finished fabrics receive the least fulling. Fabrics which are to be napped or teazeled in such a manner that the surfaces are covered with raised fibers are fulled for the longest period, which may last as long as five hours. Fabrics shrink from ten to 30 per cent in fulling.

Broadly speaking, all the processes to which mohair fabrics or fabrics of mohair blends are subjected after leaving the loom are characterized as finishing processes. They give the goods their final qualities of texture, luster, drape and resistance to shrinking under the iron in laundering, in dry cleaning or during wear. In single weaves there are three main types. Clear finish goods, such as suitings, flat upholstery fabrics, window drapes, etc.; natural finish goods, which includes tweeds and shetlands; and face finish goods, these running the gauntlet from broadcloths to fleeces in apparel fabrics and pile fabrics in upholstery materials.

Face finished goods are felted in fulling to a point where the weave construction is not visible. They are then napped or gigged on rollers with wire teeth or teazels to produce the required surface finish.

Both apparel and decorative fabrics containing mohair are either dyed or printed. Where fancy effects are desired, the mohair is dyed in the top, ball of sliver or in yarn form. Chrome or acid dyes are used according to the brilliance and permanence of color desired. Fabrics for decorative purposes are colored by printing on either a white or a predyed surface of other color. Printing is done on rollers after the principal of the printing press, or by screens on which the color pattern is determined by the pattern on the screen which is laid on the flat cloth.

1945 Fall Woolen and Rayon Cards

The regular editions of the 1945 Fall Rayon Card featuring Chinese Dynasty colors and the 1945 Fall Woolen Card featuring overtones and magnetic pastels are now available to the trade, it was announced recently by Margaret Hayden Rorke, managing director of the Textile Color Card Association.

In addition to the above featured themes, these fall cards portray important basic colors in groups of tone-on-tones. Of special fashion interest are the cherry, black raspberry, plum and mauve dahlia ranges. Lacquer, olive and lime-mint tones are prominent among the greens. There are also new interpretations of vintage shades and lighter blending tones of strawberry and mauvish pinks. In the neutral register, string blond, glace cocoa, bitter chocolate and cream coffee types are especially cited, along with a smoky taupe. Burnt honey and hot mustard versions of gold add animation to the fall color scale, as do pepper spice, cinnamon and orange-tinted copper hues.

Cotton Goods Market

Combed cotton fabrics in the gray and finished states, produced for the War Department under the War Production Board's direction of March 17, 1945, have been excluded from price control for a three-month contracting period, the Office of Price Administration has announced. The exemption, which is retroactive to April 16, 1945, applies only to the following: (1) finished goods for which military contracts were signed or may be signed during the three-month period beginning April 16, 1945; (2) gray goods for which contracts were signed with converters during the same period, provided the converters were under contract to the War Department for finished fabrics made of these gray goods.

If contracts are made within the required period, the exemption from price control remains effective no matter when the goods are finally delivered, OPA pointed out.

The only alternative to the exemption would have required processing of individual prices for more than 130 mills affected by the WPB direction. These mills, OPA explained, are required to devote 50 per cent of their combed sliver and 100 per cent of their twister spindles to 29 specific constructions of cloth—most of them heavier and more difficult to weave than those ordinarily turned out by fine goods mills.

Only a few of the manufacturers have equipment suited suited to these types of fabrics, and the expense of conversion will add to their production costs in varying amounts. Most of the producers of gray goods will also finish the fabrics, OPA added, which means that the cloth, under ordinary circumstances, might have been priced under the finished piece goods regulation.

Representatives of the Army said that the three-month period is sufficient time in which to enter into all the contracts needed to meet its requirements, OPA added. Goods delivered as a result of contracts made after the three-month period remain subject to the applicable regulations.

WPB announced May 21 that producers of cotton textiles are now required to treat alike AA-3 and AA-5 export orders for cotton textiles until the percentage of their output required to fill rated orders placed by the Treasury Procurement, as well as rated export orders placed by persons other than Treasury Procurement, is delivered in accordance with the distribution schedules of Order M-317A.

This action was taken by issuance of Amendment 1 to Supplementary Order M-317A (Cotton Fabric Preference Ratings and Restrictions), which requires AA-5 orders up to the amounts of the export set-asides of the distribution schedules of that order to be treated as if they were rated AA-3.

Cotton Yarns Market

Sale cotton yarn production during May, according to incomplete reports, shows some improvement over that of April. Projecting into June the probable conditions that will carry over from May, it is indicated the total second quarter production of sale yarn will be larger than was reported for the first quarter, which, in turn, showed improvement over the fourth quarter last year.

As compared with a year ago, it is indicated the number of active spindles is down moderately, as is also the average per week of working hours. In the combed yarn division, it is believed the better showing during the present quarter, as compared with the two previous quarters, denotes a beginning of recovery of normal productivity of these mills. In carded yarn, part of the better showing can be attributed to inclusion in the yarn production totals of the output of spinning mills (integrated and otherwise) whose yarn was diverted by WPB directives in the last quarter.

Figures compiled by Southern combed yarn group for the first 1945 quarter show single yarn production of 15,471,000 pounds and ply yarn output of 21,815,000 pounds. The estimated second 1945 quarter's production indicates a small gain in single yarn and virtually unchanged ply yarn production, if June conditions remain the same as during the April-May period.

The Bureau of the Census has announced that, according to preliminary figures, 23,147,978 cotton spinning spindles were in place in the United States on April 30, 1945, of which 22,158,674 were operated at some time during the month compared with 22,232,168 in March, 22,223,848 in February, 22,260,628 in January, 1945, 22,219,768 in December, and 22,411,922 in April, 1944. The aggregate number of active spindle hours reported for the month was 9,021,660, an average of 390 per spindle in place, compared with 9,315,634,608, an average of 400 per spindle in place, for last month and 9,315,694,608, an average of 400 per spindle in place for April, 1944. Based on an activity of 80 hours per week, cotton spindles in the United States were operated during April, 1945, at 116.9 per cent capacity. The percentage of the same activity basis was 121.8 for March, 122.2 for February, 119.7 for January, 1945, 118.5 for December, and 124.9 for April, 1944.

With talk of cutbacks being widely discussed throughout the market, cotton yarn men report that trades which have no rating are increasing pressure on mills for yarn supplies with which to make up such items as draperies and curtains.

The Development of Calgon

(Continued from Page 22)—with by scientists of almost every country in the world but never put to use in a practical manner.

One primary difficulty was how and where to get the chemical for bulk use. None existed in this country. There was none in England, France or Germany. The only available supply cost a dollar a pound. Hall started up a little, crude gas-fired furnace near Zelienople, Pa., and there his assistant, Paul Morrison, produced in the fall of 1929 the first commercial batch. It amounted to two tons—enough to tide over until arrangements could be made for some chemical company to make the material in commercial amounts.

Ironically, Hall found that with his new water treatment Hopwood's mechanical deconcentrator, while useful enough, was no longer necessary. Characteristically, Hopwood accepted the verdict and dumped his pet device overboard, pinning all his faith on chemical water treatment! To anyone who really knew John Hopwood there would have been nothing surprising in all that. He once told friends that, while he was engaged in selling stokers, he found himself somehow or other getting more or less into the ash handling business. One day he sat back and thought about it. He decided he didn't *like* the ash business. So *that* went overboard.

Between 1929 and 1932 Hall and his associates of Hall Laboratories put all their water knowledge to work in the boiler plants of America's leading corporations, giving them continuity of operation so far as steam was concerned. Hall still did not dream that Graham's salt had any other use. It was not until late in this period that, during an experimental soap test, he discovered that it could be effective with water because of its calcium-locking trait.

Striding into Hopwood's office, he reported with visible excitement: "We've just finished a million-dollar experiment. Come and see it." From four to seven o'clock Hopwood and George W. Smith, Hall's associate and a Carnegie

Tech-trained chemical engineer who had become general manager, watched Hall repeat the experiment and discussed the possibilities. New horizons came into view. "We had the feeling," Hall said afterward, "that we stood on the top of a mountain, looking down on a broad vista below, after years of climbing up from the valley. We were literally drunk—but without a drop of liquor!"

New researches began at once. One was in the laundry field, another in the field of mechanical dishwashing. Even the home came in for some study. A fellowship was established at Mellon Institute for Industrial Research. Other work was carried on at Hall Laboratories. Before long laundries all over the country were using Calgon and so were hotels and restaurants.

First Try With Textiles

Shortly, R. L. Williams induced the first textile plant, a woolen mill, to try Calgon, and it has been in use there ever since. As an example of how it has served, its use in the dyebath immediately cut the percentage of rejections. Previously, too many pieces would not take color well because of the residue of stocky, insoluble soap. The cause of this was established as lime salts in the raw wool and in the water used for scouring. Textile plants use the chemical in the wool carbonizing bath also, where a very small proportion prevents the formation of calcium sulphate sludge or scale. Today millions of pounds are used in the industry and textile chemists say they would never wish to return to the day when they knew nothing about it.

Booklet Features Du Pont's "Aridex"

A select market report of good buys in clothing treated with "Aridex" water repellent is presented in "Weatherwise Merchandise," an illustrated 16-page book let just issued by the textile service section of E. I. du Pont de Nemours & Co. Emphasizing that "Aridex" is never out of season, the booklet shows photographs of men's, women's and children's wear as varied as fleecy snow suits and cotton sun shorts.

The booklet points out that the finish offers triple protection: (1) sheds water, snow, sleet—helps keep people dry; (2) resists non-oily spotting and staining—saves care; and (3) reduces wrinkling caused by dampness. Clothes keep their press—stay in shape longer. Another advantage mentioned is that the treatment works on woolens, cottons, rayons and mixtures—even luxury weaves like rayon taffeta —and does not change fabric texture or richness of hand.

In response to inquiries as to whether the letter direction issued to woolen mills on Feb. 1, fixing spindle-hour quotas for mill operation would be extended beyond the present expiration date of June 17, the War Production Board has stated that present indications were that no extension of the direction would be necessary.

Officials of WPB's textile, clothing and leather bureau said that assurance had been given by the industry that military requirements for woolen fabrics would continue to be met without renewal of spindle-hour quotas for individual mills.

EDITORIAL

(Continued from Page 33)—be no evidence that it does anything other than to smile and pat the union attorneys upon their backs.

On May 14 the Gaffney Mfg. Co. was shut down by a strike and the production of war goods was stopped solely for the purpose of trying to force the company to agree to aid in the collection of union dues by becoming a collection agency and agree to discharge employees who quit paying dues.

Then the American Gestapo went into effect and the War Labor Board, knowing that it had no legal authority, in fact, that the courts had definitely and positively held that they could not do more than advise, called upon the President to order the Army to take over the mill and the Army, having no choice in the matter, took over. The Army gave the management the choice of operating the mill under their control, which meant operating under War Labor Board orders or turning the plant over entirely to Army control. The management allowed the Army to take over.

The government will furnish operating money and whatever profits, if any, are made will belong to the government and they likewise will absorb and operating losses. We have an idea that the balance sheet of operations under the ceiling recently fixed by Chester Bowles may be a rude shock to some who have been talking about excessive mill profits. The union will get an increase in dues collections which, as the War Labor Board well knows, was the sole and only objective of all of this trouble.

When the property is finally turned back to the stockholders of the Gaffney Mfg. Co. they will file a claim with the government for the use of the property and for such profits as they would have made during Army control. If the government does not grant this claim in full, the stockholders can take the case to the courts with the knowledge that any decent and honorable judge will hold that the War Labor Board not only exceeded its authority but knew that it had no such authority.

Under a ruling that there had been "illegal seizure" the courts will be very liberal in awarding damages, and we have the idea that from a financial standpoint the Gaffney Mfg. Co. will come out much better than if they had operated the mills themselves.

The American Gestapo, the War Labor Board, attempting to help a union increase its collection of dues, assumed authority which it knew that it did not have and called upon the President and the Army to help them in an illegal use of power.

The Gaffney Mfg. Co. case may decide whether or not we are a nation of free men or shall be subject to having illegal orders enforced by our Army.

Extended Use of Durene Yarn Predicted

Greatly increased use of Durene yarn after the war was predicted by Richard T. Scott of New York, president of the Durene Association, when he attended a two-day meeting of the group in Charlotte May 22-23. W. H. Suttenfield of Charlotte, an executive of the American Yarn & Processing Co. of Mt. Holly, is vice-president of this association, which has a membership composed of companies engaged in production of fine cotton yarns. Current activities and future plans in connection with the merchandising

of the Durene yarns, of mercerized cotton, were discussed at this two-day session.

Mr. Scott pointed out that while a major part of the production of association members continues to be allocated to the use of the armed forces and the amount now available for civilian use is comparatively small, manufacturers and retailers are expressing widespread interest in merchandise of Durene and are already making plans for expanded future use of this yarn. Commenting on the the anticipated scope of Durene yarn usage, Mr. Scott made the following statements:

"In hosiery, largest current market of Durene yarn, larger poundage is expected for men's half hose, women's and misses' anklets and children's socks, in all of which the extra comfort and strength provided by quality mercerized yarn is of importance. Children's outerwear manufacturers report projected plans for increased use of Durene yarns. In this field the high absorbency, smoothness and lustre of the yarn, as well as its wearing and washing qualities, are especially important. The already significant volume represented by men's and boys' undershirts will be expanded, and production of knitted briefs will be much greater. Various other fields will also be opened to a greater extent to Durene yarn when the military requirements are minimized."

OBITUARY

James N. Williamson, former operator of the old Holt-Gant Mills, Saxapahaw, N. C., died May 17 following a heart attack at his home in Asheville, N. C. He retired some 25 years ago after selling his interest in the company. Survivors include his widow, one daughter and two sons.

Lieut. Albert S. Hagood, 35, an official and director of Pickens (S. C.) Mill and Glenwood Cotton Mills at Easley, S. C., was killed in action in Germany, according to a War Department report. He had been in the Army more than two years and had been overseas since February.

Emil J. Stehli, 76, chairman and former president of United States Testing Co., died May 21 in New York after a short illness. His entire career, both in this country and his native Switzerland, was spent in the textile field. Survivors include his widow, a daughter and a son.

Marcus S. Hull, 73, a well known overseer in various plants of Springs Cotton Mills prior to his retirement, died May 26 at Chester, S. C. He is survived by his widow, four daughters and five sons.

S/Sgt. Howarth King, 20, was killed in action on Luzon Island in the Philippines May 2, according to word received by his father, overseer of weaving for Dallas Mfg. Co. at Huntsville, Ala.

C. Walter Spalding, manager of power transmission machinery for the Link-Belt Co., died suddenly May 25 at Chicago. He is survived by his widow, a son and a daughter.

The South—Its Industrial Growth and Expansion

(Continued from Page 16) — the start of this century is not a mirage. It is tangible. It can be seen and heard. It can be seen and heard in thousands of Southern mills and factories. It can be seen and heard in the busy freight yards and on the shining tracks of a vibrant transportation system. It can be seen and heard in the councils of Southern business leaders when they talk of the promising future of our territory. And what you see and what you hear is the source of my optimism—an optimism that is not tempered one bit by the wails of the "viewers with alarm" or the tilting of the Don Quixotes who rush at imaginary windmills which they label with all sorts of fearful names.

For several years now the Southern Railway System has been telling the world to "Look Ahead—Look South!" In thousands of advertisements in hundreds of newspapers and nationally circulated magazines we have been expressing our faith in the territory that we are privileged to serve in words like these—

"Look beyond the stress and strain of war . . . to a Southland greater in industrial might—richer in fruits of farm and field . . . more exciting in new opportunities than ever before.

"Look South! . . . and see mines and mills, forests and factories, that are destined to make great and enduring contributions to a greater Southland.

"Look South . . . to the land so richly endowed by Nature with an abundance of raw materials and natural resources."

Thus we are emphasizing the fact that to "Look South" is just another way of saying "Look Ahead"—look ahead to the future of a Southland bristling with industrial and agricultural might.

Naturally, we are not spending our hard-earned dollars to point the way Southward because we like to see our name in print or because we like to please our friends in the publishing field. Rather, we are doing it because we have a deep-seated conviction that the Southland will surely climb to as yet unscaled heights of prosperity. We are doing it because we believe that the great strides made in the industrialization of the South in the past portend a greater advance in the future. We are doing it because we know that when the day of peace dawns for mankind everywhere, we here in the South will still have our inexhaustible stores of raw materials of mine, forest, and agriculture; our cheap and abundant fuel and power; our skilled native-born labor; our moderate climate; our vast store of natural resources, and our adequate, dependable system of rail transportation, ready and willing to link forest and factories and mills and mines into an endless chain of industrial might—and best of all the courage, the will, the talent to utilize them to the everlasting benefit of all our citizens.

This is our vision of tomorrow for the Southland. This is what we believe, deep in our hearts. This is what we shall continue to hold to, praying earnestly the while that sometime, somehow, the few who so thoughtlessly try to dilute our faith and hope by arousing the inherited martyrdom of the South will come to realize that even their misguided and faint echo of a past glorious call to arms cannot slow the sure march of our people and our territory to its destiny as the greatest of all the nation's industrial and agricultural areas.

Together, we shall continue to "Look Ahead—Look South!"

Brazil Arranges To Furnish Cotton Fabrics

An important contribution to the alleviation of the acute United Nations cotton textile situation is being made by Brazil, according to the Combined Production and Resources Board. Some 300,000,000 yards of cotton fabrics have been added to Brazil's export commitments for the next 12 months, under an agreement just reached at Rio de Janeiro between representatives of the CPRB's textile committee and the Comissao Executiva Textil of Brazil. Last May a Brazilian textile mission visited Washington and indicated that its government would endeavor, in the interests of the Allied war effort, to make available for export about 500,000,000 yards of cotton textiles during the year, but in fact only a portion of the 500,000,000 yards was actually ordered and shipped.

The mission found that Brazil had commercial commitments for about 200,000,000 yards for 1945. Brazil is supplying in cotton textiles a part of her national contribution to the United Nations Relief and Rehabilitation Administration. Ninety million yards have been contracted for by UNRRA for delivery over 12 months. The French Government has concluded orders with Brazil for 60,000,000 yards, which will, it is hoped, be delivered in 1945. In addition, Brazil hopes to supply a further 60,000,000 yards commercially to various other markets. The recent agreement between the Comissao Executiva Textil in Brazil and the textile committee of CPRB provides for 80,000,000 yards to be purchased governmentally for liberated areas, chiefly in the Far East. Thus it is expected that during the next 12 months Brazil will reach the target of an annual export of nearly 500,000,000 yards.

Brazil recognizes the duty of the Combined Production and Resources Board to determine the most effective use of textile production in the prosecution of the war. Brazil is, therefore, appointing a textile representative to work with the textile committee of CPRB in Washington; and the Comissao Executiva Textil will execute in Brazil the recommendations of the combined board as they relate to Brazilian textiles. Operation of the agreement will be facilitated by a special working group that it is proposed to set up in Rio de Janeiro under the chairmanship of Jose Maciel Filho, with representatives of the United States, British and Canadian embassies as members, and Gilbert L. Landsberg as secretary. The understanding that has been reached on prices relates Brazilian export prices to world levels.

The CPRB mission to Brazil consisted of T. M. Bancroft, chairman of the textile committee of CPRB and assistant director of the textile, clothing and leather bureau of the War Production Board; Col. W. A. Grierson, United Kingdom member of the textile committee; Frank Winterbottom of the British Ministry of Production; Saul Nelson, American staff member of the textile committee; and Richard D. Cleaves of the Foreign Economic Administration.

Notes On Erection of Textile Machinery

(Continued from Page 30)—desirable when first testing the operation of the frame that two bobbins at each end and two in the middle of the frame be built to full diameter before threading up the entire machine, as this gives the erector a chance to make any minor adjustments necessary for producing satisfactory roving. Since the roving frame is altogether different from machinery used in previous processes, considerably more progress can be made on the erection when two or more roving frames can be built at the same time. Full specifications are furnished with each installation, which includes layout prints, lubrication charts, and gearing diagram.

Spinning—The spinning frame is very similar to roving frame in that there are a large number of parts that are boxed and have to be installed at the mill. However, the erection of the spinning frame in the shops is somewhat different from that of the roving frame, as the spinning frame is not as completely built as the roving frame. The spinning frame chassis is built on level steel skids. The spindle rails, roll beams, head and foot ends, and cylinders are installed on each frame, built and properly dowel pinned and marked with serial numbers. However, in each lot of spinning machinery manufactured one frame is built complete, run and tested in the shops to be certain that all parts fit properly. The number of yarn for which a particular lot of spinning machinery is being built is run on a completely built frame before the frames are dismantled and shipped.

When received at the mill the sampsons, head and foot ends, roll beams, and spindle rails are packed with braces in the car; all other parts are either crated or boxed. Floor lines, for locating the frames both lengthwise and spacing of the frames, are scribed on the floor. Many modern mills use either tin or zinc under the head end of the frame up to and including the builder parts. The sampsons, spindle rails, and roll beams are assembled, after which the head and foot ends are installed. All of these parts, as stated before, have been bolted and dowel pinned while being built in the shops, and are put together from the serial numbers. The under work, such as cross shafts, cross shaft hangers and builder parts is installed, after which the frame is perfectly leveled and lined with precision lining and leveling equipment. The cylinders and cylinder bearings are then installed.

It is quite essential that all cylinder bearing housing be thoroughly cleaned before installing the bearings. The cylinder bearings are dowel pinned to the cross girts to insure permanent alignment of the cylinders. The lifting rods are then put on the frames. The creels are assembled and set to the proper dimensions depending on the length bobbin of roving to be used. The top roll weights are hung. The frame now has sufficient weight to warrant the final lining and leveling, after which the sampsons are bolted to the floor. The rings and holders are then unpacked and assembled into the ring rails. The rings when packed are lubricated with a special ring oil that should not be removed from the rings, as this lubrication has a tendency for the easy breaking in of the traveler when the frame is started. The ring rails are then installed and properly leveled.

The frames are now ready for the installation of the roll stands and lever screws. The steel rolls should be unpacked very carefully, special attention to be given so as not to

bruise the flutes on the steel rolls. After having been thoroughly cleaned the rolls are then installed on the frames, the stands are lined and leveled. It is quite important to test the height of the roll stands and high stands should be broached down with a special broach so that the roll bearings will bed in the bottom of the roll stand. The lining of the steel roll stands is done with a special equipment. Before installing the spindles the tape tension units should be installed and properly set.

The frame is now ready for the installation of spindles, bases and bolsters, which are shipped as a unit. The tapes should be cut and sewed by an experienced tape man. The tape must be of the proper length and a given lap, thoroughly sewed to insure long life. After this the builder should be set for the proper stroke and taper of the traverse. The top roll cap bar blocks, top rolls are installed, the rolls properly set. Lever screws are adjusted so as to have the top roll weight lever perfectly level from the lever screw to the top roll weight hook. This is usually accomplished by a gauge extending from the top roll weight board to the underneath part of the weight lever. The frame is now ready for belting and the setting of the spindles to the ring. It is desirable to run the spindles for approximately 24 hours before setting the spindles to the ring, as this will give the spindle a chance to properly seat itself in the bolsters, which means that after the spindles have been plumbed that they will run longer before they require the second plumbing. When the proper traveler has been selected it is desirable to build six complete bobbins on each side of the frame. This gives a chance for any final adjustments necessary before threading up the entire frame.

Like any other new machine the proper lubrication on the spinning frame is very necessary. It has been found an advantage that after the frame has run three or four weeks to take out the spindles, draw all of the old oil from the base and bolster and wash out the base and bolster with a special cleaning oil and put in new spindle oil. This precaution insures a longer and more satisfactory spindle life. The progress of the erection of the spinning frame is like that of the roving frame—the larger the number of frames that can be built at the same time shortens the length of time necessary over that of the erection of one or two frames. Blueprint layouts, diagrams, and complete specifications are also furnished with spinning and should be thoroughly understood by the personnel responsible for the operation of the equipment.

The erection of twisters is more or less similar to that of spinning frames, except that the twisters are as a rule of larger dimensions and are built on the principle of twisting different plys of yarn. The greatest difference in spinning and twisting machinery is the design of the creels.

Synthetic Rubber Latex Production Increased

Production of special synthetic rubber latex now exceeds 1,500,000 pounds per month at one of the government's latex producing plants, operated for Rubber Reserve Co. by United States Rubber Co. at Naugatuck, Conn., according to J. P. Coe, general manager of the company's synthetic rubber division. This liquid form of synthetic rubber replaces natural rubber latex where it was used in the manufacture of most synthetic rubber tires, and in fabric and paper impregnation.

"Nearly 10,000,000 pounds were produced last year at the Naugatuck plant and production by the end of this year is expected to reach 2,000,000 pounds per month, dry weight, of synthetic rubber latex," Mr. Coe stated. "This production compares with a nationwide pre-war consumption of natural rubber latex of 6,000,000 pounds per month just before the war."

"American scientists, engineers and production men have achieved in five years with synthetic rubber what it took nearly 70 years to accomplish with natural rubber," James J. Newman, vice-president of the B. F. Goodrich Co., told a group of business men in Memphis, Tenn., recently. "The ability to use American man-made rubber for all essential war products—and in such volume that it now constitutes 85 per cent of the over-all volume of rubber this country is using—has been a life-saver," Mr. Newman said, "for today we are nearer the bottom of the natural rubber barrel than we have ever been."

The executive traced the overnight evolution of tire-type synthetic rubber from its 6,000 tons—less than one per cent of total consumption—in 1941 to the 565,000 tons actually consumed in 1944. Production for 1944 exceeded 750,000 tons. Synthetic is used up to 100 per cent in many war products seeing the most rugged service, including de-icers, fuel cells, pontons, boots, foul weather clothing, plasma tubing, diaphragms and hose of all kinds, he said. Only one type of military tire is still made with 100 per cent natural rubber and the over-all tire average is 86 per cent synthetic.

Manufacturers Polled on Post-War Plans

In a nation-wide poll on post-war plans, conducted by Dun & Bradstreet, 33 per cent of the 770 textile manufacturers who returned the questionnaire stated that they plan to manufacture new products after the war, but the majority, or 67 per cent, replied that they would continue to manufacture the items which they have previously produced. Likewise the majority answered in the negative on the question of whether or not they planned to sell to new classes of customers; 26 per cent stated that they did plan to sell to new classes of customers, and 74 per cent stated that they did not.

A larger group showed an inclination to expand their sales territories when the war is concluded, as 38 per cent answered in the affirmative when asked whether they plan to expand their territories, while 62 per cent said that they contemplated no change. The most decidedly negative response came in answer to the question of whether they plan to use new methods or channels of distribution in the post-war days; 84 per cent answered this question negatively and only 16 per cent stated intentions of seeking new methods of distribution. For the purpose of tabulating answers from various sections of the country, the South was divided into

three geographic regions, the Richmond region, the Atlanta region, and the Dallas region, and the ratio of affirmative and negative answers to the four questions ran about the same in these regions.

Various types of industries in addition to textile manufacturers were included in the poll, with automotive and transportation equipment lines, electrical machinery, machinery, rubber and transportation equipment industries indicating the highest percentage of planned change.

U. S. Plywood To Distribute Pliobond

Appointment of United States Plywood Corp. as exclusive nationwide sales agent for Pliobond, the universal synthetic adhesive cement, was announced this month by Goodyear Tire & Rubber Co., which developed and manufactures Pliobond. The cement will now be marketed through U. S. Plywood's 20 distributing units throughout the country.

Lawrence Ottinger, president of U. S. Plywood, describes Pliobond as "one of the outstanding plastic developments of the war," said plans will be announced shortly for aggressive promotion and distribution "which will make this important product accessible to the general public as soon as possible." Pliobond is the first all-purpose adhesive, he said, which makes it possible to bony any materials together which have never before been bonded, at the same time is simple and easy to use. It is in liquid form and a bond can be achieved with either hot or cold application and without high pressure.

A product of the Goodyear research laboratory, Pliobond was developed by Goodyear as part of its war program to meet a host of needs wherein an unusually strong adhesive is required. With its product, the company states, the joining of materials including fabrics, wood, plaster, glass, paper, leather vulcanized rubber, ceramic ware, etc., is possible. In many cases where Pliobond is used, the bond itself is actually stronger than the bonded materials, according to Goodyear. Pliobond has the added advantages of being flexible, waterproof and resistant to the actions of ordinary chemical solvents.

WPB Checking Fibreboard Use

Because of the continuing shortages of fibreboard shipping containers the War Production Board has taken action to enforce compliance with the provisions of Limitation Order L-417, which governs the use of new fibreboard shipping containers. WPB spokesmen said the agency had been engaged for some time in "spot-checking" hundreds of packers on their use of such containers. This new direction, officially known as Direction 3, prohibits the acceptance of new fibre containers where a packer kept inadequate records of 1944 and 1945 lawful usage of new fibre shipping containers that are subject to the quota restrictions in Order L-317.

SOUTHERN SOURCES OF SUPPLY

FOR EQUIPMENT, PARTS, MATERIAL, SERVICE

Following are the addresses of Southern plants, warehouses, offices, and representatives of manufacturers of textile equipment and supplies who advertise regularly in TEXTILE BULLETIN. We realize that operating executives are frequently in urgent need of information, service, equipment, parts and materials, and believe this guide will prove of real value to our subscribers.

ABINGTON TEXTILE MACHINERY WORKS, Abingdon, Mass. Offices at Boston, Mass., and Charlotte, N. C.

ACME MACHINE & TOOL CO., 2516 Wilkinson Blvd., Charlotte, N. C.

ACME STEEL CO., 2838 Archer Ave., Chicago, Ill. Sou. Office and Warehouse, 603 Stewart Ave., S.W., Atlanta, Ga., F. H. Webb, Dist. Mgr. Sou. Sales Reps.: C. A. Carrell, 523 Clairmont Ave., Decatur, Ga., Phone Dearborn 6267; Marcus M. Brown, 1231 Lexington Ave. (Phone 8583), Charlotte, N. C.; William O. Polley, 937 Cherokee Lane, Signal Mountain, Tenn., Phone Chattanooga 8-2635; John C. Brill, 309 Magazine St., New Orleans, La., Phone Magnolia 5859. Warehouses at Atlanta, Ga., Greenville, S. C., New Orleans, La.

AKRON BELTING CO., THE, Akron, O. Sou. Reps.: Ralph Gossett and Wm. J. Moore, 15 Augusta St., Greenville, S. C.; The Akron Belting Co., 466 S. 2nd St., Memphis, Tenn.

ALLADDIN LABORATORIES, INC., 68 William St., New York 5, N. Y. Sou. Repr.: J. W. Baldwin, 124 E. Third St., Charlotte, N. C. Phone 3-2252.

ALLEN CO., 440 River Road, New Bedford, Mass. Sou. Repr.: L. E. Wooten, Fort Mill, S. C.

AMERICAN BLOWER CORP., P. O. Box 58, Roosevelt Park Annex, Detroit, Mich.; 7 N. 6th St., Richmond, Va.; 1211 Commercial Bank Bldg., Charlotte, N. C.; Room 714, 101 Marietta St. Bldg., Atlanta, Ga.; Room 309, Jahncke Bldg., 816 Howard Ave., New Orleans, La.; 619 Texas Bank Bldg., Dallas, Tex.; 312 Keller Bldg., Houston, Tex.

AMERICAN CYANAMID & CHEMICAL CORP., 30 Rockefeller Plaza, New York City. Sou. Office and Warehouse, Wilkinson Blvd., Charlotte, N. C., Hugh Puckett, Sou. Sales Mgr. Reps.: John D. Hunter, E. H. Driver, Paul F. Haddock, Charlotte Office; E. J. Adams, 1404 S. 22nd St., Birmingham, Ala.; Jack B. Button, 610 N. Mendenhall St., Greensboro, N. C.; C. B. Suttle, Jr., 423 Clairmont Ave., Decatur, Ga.; K. E. Youngchild, 10 South St., Mobile, Ala.

AMERICAN MOISTENING CO., Providence, R. I. Sou. Plants, Charlotte, N. C., and Atlanta, Ga.

AMERICAN PAPER TUBE CO., Woonsocket, R. I. Sou. Office: 513 S. Tryon St., Charlotte, N. C.; Jesse Hodges, Sou. Repr.

AMERICAN VISCOSE CO., 350 Fifth Ave., New York City. Sou. Office, Johnston Bldg., Charlotte, N. C., Harry L. Dalton, Mgr.

ARKANSAS CO., INC., P. O. Box 210, Newark, N. J. Sou. Repr.: Jasper M. Brown, 1204 Greenwood Cliff, Charlotte, N. C.

ARMSTRONG CORK CO., Industrial Div., Textile Products Section, Lancaster, Pa. Sou. Office, 33 Norwood Place, Greenville, S. C. J. V. Ashley, Sou. Dist. Mgr.

ARNOLD, HOFFMAN & CO., INC., Providence, R. I. Sou. Headquarters, 2130 N. Tryon St., Charlotte, N. C., Mgr., Walter T. Bunce, Phone 2-4073; Technical Service men: Reid Tull, 116 W. Thomas St., Salisbury, N. C., Phone 1497-J; Philip L. Lavoie, 2130 N. Tryon St., Charlotte, N. C.; John H. Graham, P. O. Box 904, Greenville, S. C., Phone 2922; John R. Brown, P. O. Box 749, Trussville, Ala., Phone 127; Warehouse, 2130 N. Tryon St., Charlotte, N. C.

ASHWORTH BROS., INC., Charlotte, N. C. Sou. Offices, 44-A Norwood Place, Greenville, S. C.; 215 Central Ave., S.W., Atlanta, Ga.; Texas Rep.: Textile Supply Co., Dallas, Tex.

ATWOOD MACHINE CO., Stonington, Conn. Sou. Rep.: Fred Sails, Johnston Bldg., Charlotte, N. C.

BAHNSON CO., THE, 1001 S. Marshall St., Winston-Salem, N. C.; 886 Drewery St., Atlanta, Ga.

BANCROFT BELTING CO., Boston, Mass. Warehouse and Sou. Distributor, Carolina Supply Co., Greenville, S. C.

BARBER-COLMAN CO., Rockford, Ill. Sou. Office, 31 W. McBee Ave., Greenville, S. C., J. H. Spencer, Mgr.

BARIUM REDUCTION CORP., S. Charleston, W. Va. Sou. Distributors: American Cyanamid & Chemical Corp.; F. H. Ross & Co., Charlotte, N. C.

BARKLEY MACHINE WORKS, Gastonia, N. C.

BARNES TEXTILE ASSOCIATES, INC., 10 High St., Boston, Mass. Sou. Office, 318 Montgomery Bldg., Spartanburg, S. C.

BECCO SALES CORP., Buffalo, N. Y. Sou. Reps.: J. D. Quern and D. S. Quern, 1930 Harris Road, Charlotte, N. C.

BEST & CO., INC., EDWARD H., Boston, Mass. Sou. Rep.: W. C. Hames, 185 Pinecrest Ave., Decatur, Ga., Phone Dearborn 5974; Ralph Gossett, William J. Moore, 15 Augusta St., Greenville, S. C., Phone 150.

BOND CO., CHAS., 617 Arch St., Philadelphia, Pa. Sou. Rep.: Harold C. Smith, Greenville, S. C.

BORNE, SCRYMSER CO., Works and Offices, 632 S. Front St., Elizabeth, N. J.; Warehouse, 815 W. Morehead St., Charlotte, N. C. Sou. Mgr., H. L. Siever, Charlotte, N. C. Reps.: R. C. Young, Charlotte, N. C.; John Ferguson, LaGrange, Ga.

BROWN CO., THE DAVID, Lawrence, Mass. Sou. Reps.: Greenville, S. C.; Ralph Gossett and Wm. J. Moore; Griffin, Ga., Belton C. Plowden; Dallas, Tex., Russell A. Singleton Co., Inc.; Gastonia, N. C., Gastonia Mill Supply Co.; Spartanburg, S. C., Montgomery & Crawford.

BURKART-SCHIER CHEMICAL CO., Chattanooga, Tenn. Plants: Chattanooga-Knoxville-Nashville; Sales and Service: C. A. Schier, A. S. Burkart, W. A. Bentel, W. J. Kelly, Jr., George S. McCarty, A. J. Kelly, D. H. Gunther, care of Burkart-Schier Chemical Co., Chattanooga, Tenn.; H. V. Wells, care of Burkart-Schier Chemical Co., Nashville, Tenn.; Lawrence Newman, care of Burkart-Schier Chemical Co., Knoxville, Tenn.; James A. Brittain, 3526 Cliff Road, Birmingham, Ala.; Nelson A. Fisher, 629 Hillside Ave., Glen Ellyn, Chicago, Ill.; Byrd Miller, Woodside Bldg., Greenville, S. C.

BUTTERWORTH & SONS CO., H. W., Philadelphia, Pa. Sou. Rep.: J. H. Zahn, Johnston Bldg., Charlotte, N. C.

CAROLINA REFRACTORIES CO., Hartsville, S. C.

CARTER TRAVELER CO., Gastonia, N. C. R. D. Hughes Sales Co., 1812 Main St., Dallas, Tex., Texas and Arkansas; Eastern Rep. (including Canada): C. E. Herrick, 44 Franklin St., Providence, R. I.; European Rep.: Mellor, Bromley & Co., Ltd., Leicester, England.

CHARLOTTE CHEMICAL LABORATORIES, INC., Charlotte, N. C. Peter S. Gilchrist, Jr., Rep.

CHARLOTTE LEATHER BELTING CO., 314 E. 6th St., Charlotte, N. C. Sales Reps.: J. E. Beattie, P. O. Box 82, Greenville, S. C.; J. L. Harkey and P. L. Pindell, Charlotte Office.

CIBA CO., INC., Greenwich and Morton Sts., New York City. Sou. Offices and Warehouses, Charlotte, N. C.

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EATON, PAUL B., 218 Johnston Bldg., Charlotte, N. C.

EMMONS LOOM HARNESS CO., Lawrence, Mass. Sou. Plant, 118½ W. Fourth St., Charlotte, N. C., George A. Field, Mgr.; Clifton E. Watson, Mgr. Sou. Sales. Arthur W. Harris, Harris Mfg. Co., Agt., P. O. Box 1982, Phone Main 2643, Atlanta, Ga.; R. D. Hughes Sales Co., 1812 Main St., Dallas 1, Tex.

ENGINEERING SALES CO., 217 Builders' Bldg., Charlotte, N. C., and Allen Bldg., Greenville, S. C.; S. R. and V. G. Brookshire.

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GENERAL DYESTUFF CORP., 435 Hudson St., New York City. Sou. Office and Warehouse, 2459 Wilkinson Blvd., Charlotte, N. C., S. H. Williams, Mgr.

GILL LEATHER CO., Salem, Mass. Sou. Reps.: Belton C. Plowden, Griffin, Ga., Tel. 3187; Mrs. W. G. Hamner, Gastonia, N. C., Tel. 229; Ralph Gossett, 15 Augusta St., Greenville, S. C., Tel. 150; Wm. J. Moore, P. O. Box 1523, Greenville, S. C., Tel. 150.

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GRATON & KNIGHT CO., Worcester 4, Mass. Sou. Reps.: D. A. Ahlstrand, S. E. Dist. Mgr., P. O. Box 4028, Atlanta, Ga.; W. F. McAnulty, 1240 Romany Road, Charlotte 3, N. C., Phone 3-9573; P. W. Tisdell, P. O. Box 4028, Atlanta, Ga., Phone; P. T. Pinckney, Jr., Route 2, Germantown, Tenn., Phone 9. Sou. Distributors: Hugh Black, Woodside Bldg. Annex, Greenville, S. C.; The Cameron & Barkley Co., 160 Meeting St., Charleston, S. C.; Columbus Iron Works Co., 901 Front St., Columbus, Ga.; The Textile Mill Supply Co., 1300 S. Mint St., Charlotte, N. C.; Arkansas Mill Supply Co., Inc., Fourth and Louisiana Sts., Pine Bluff, Ark.; Buhrman-Pharr Hardware Co., Texarkana, Ark.; Keith-Simmons Co., Inc., Cummins Station, Nashville, Tenn.; McGowin-Lyons Hardware & Supply Co., 113-125 N. Water St., Mobile, Ala.; Henry A. Petter Supply Co., 101-214 S. First St., Paducah, Ky.; Southern Supply Co., E. Orleans St., Jackson, Tenn.; Lewis Supply Co., Helena, Ark.; Standard Supply & Hardware Co., 822 Tchoupitoulas St., New Orleans, La.; Weaks Supply Co., Fourth and Jefferson Sts., Monroe, La.; Battey Machinery Co., 100-120 N. Second Ave., Rome, Ga.; The Cameron & Barkley Co., 605 E. Forsyth St., Jacksonville, Fla.; The Cameron & Barkley Co., 107 S. Franklin St., Tampa, Fla.; Fulton Supply Co., 342 Nelson St., Atlanta, Ga.; Sharp Battery & Electric Co., Broad at Fourth St., Chattanooga, Tenn.; Tennessee Mill & Mine Supply Co., 406-12 State St., Knoxville, Tenn.; The Young & Vann Supply Co., 1725 First Ave., Birmingham, Ala.; Lewis Supply Co., 477 S. Main St., Memphis, Tenn.

GREENSBORO LOOM REED CO., Greensboro, N. C. Phone 5678. Geo. A. McFetters, Mgr., Phone 2-0205; W. P. (Bill) Anderson.

GREENVILLE BELTING CO., Greenville, S. C.

GREENVILLE TEXTILE MILL SUPPLY CO., Greenville, S. C.

GULF OIL CORPORATION OF PA., Pittsburgh, Pa. Division Offices: Atlanta, Ga., A. M. Wright, Greenville, S. C.; W. G. Robertson, Jr., Spartanburg, S. C.; J. H. Hooten, Gastonia, N. C.; R. G. Burkhalter, Charlotte, N. C.; C. P. King, Jr., Augusta, Ga.; Boston, Mass.; New York, N. Y.; Philadelphia, Pa.; New Orleans, La.; Houston, Tex.; Louisville, Ky.; Toledo, O.

H & B AMERICAN MACHINE CO., Pawtucket, R. I. Sou. Offices, 815 The Citizens and Southern National Bank Bldg., Atlanta, Ga., J. C. Martin, Agt., Johnston Bldg., Charlotte, N. C., Elmer J. McVey, Mgr.; Fritz Sweifel, Fred Dickinson, Jim Miller, Sales and Service Representatives.

HENLEY PAPER CO. (formerly Parker Paper Co.) Headquarters and Main Warehouse, High Point, N. C.; Warehouses and Sales Divisions: Charlotte, N. C., Asheville, N. C., Gastonia, N. C.

HERSEY, HENRY H., 44 Norwood Place, Greenville, S. C. Selling Agent for A. C. Lawrence Leather Co. and New England Bobbin & Shuttle Co.

HOUGHTON & CO., E. F., 303 W. Lehigh Ave., Philadelphia 33, Pa. Sou. Reps.: W. H. Brinkley, Gen. Sales Mgr., Sou. Div., 1301 W. Morehead St., Charlotte, N. C., Tel. 3-2916. Sou. Reps.: L. L. Brooks, 23 Jones Ave., Greenville, S. C., Tel. 4856-J; J. W. Byrnes, 701 N. San Jacinto St., Houston 2, Tex., Tel. Jackson 2-7443; C. L. Elgert, 300 Chesapeake Bank Bldg., 7 St. Paul St., Baltimore, Md., Tel. Saratoga 2388; T. E. Hansen, Rt. No. 2, Box 398, Glen Allen, Va., Tel. 5-1620; J. J. Reilly, 2788 Peachtree Rd., N.E., Apt. 6-B, Atlanta, Ga., Tel. Cherokee 7660; V. C. Shadden, P. O. Box 935, Chattanooga, Tenn.; C. G. Schultze, 1301 W. Morehead St., Charlotte, N. C., Tel. 3-2916; S. P. Schwoyer, P. O. Box 1507, or, 302½ Otteray Drive, High Point, N. C., Tel. 3654; J. W. Butler, 1301 W. Morehead St., Charlotte, N. C., Tel. 3-2916; W. C. McMann, 1301 W. Morehead St., Charlotte, N. C., Tel. 3-2916; H. J. Reid, 212 Lamont Drive, Decatur, Ga., Tel. Dearborn 4564.

HOUGHTON WOOL CO., 268 Summer St., Phone Liberty 1875, Boston, Mass. Sou. Rep. Jas. E. Taylor, P. O. Box 2084, Phone 3-3692, Charlotte, N. C.

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